The 17th Congress of Sudan Association of Paediatricians

Conference Program & Abstracts Book

Khartoum Sudan 21–24 October 2011

Friendship Hall

The 17th Congress of the Sudanese Association of Paediatricians

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Friendship Hall

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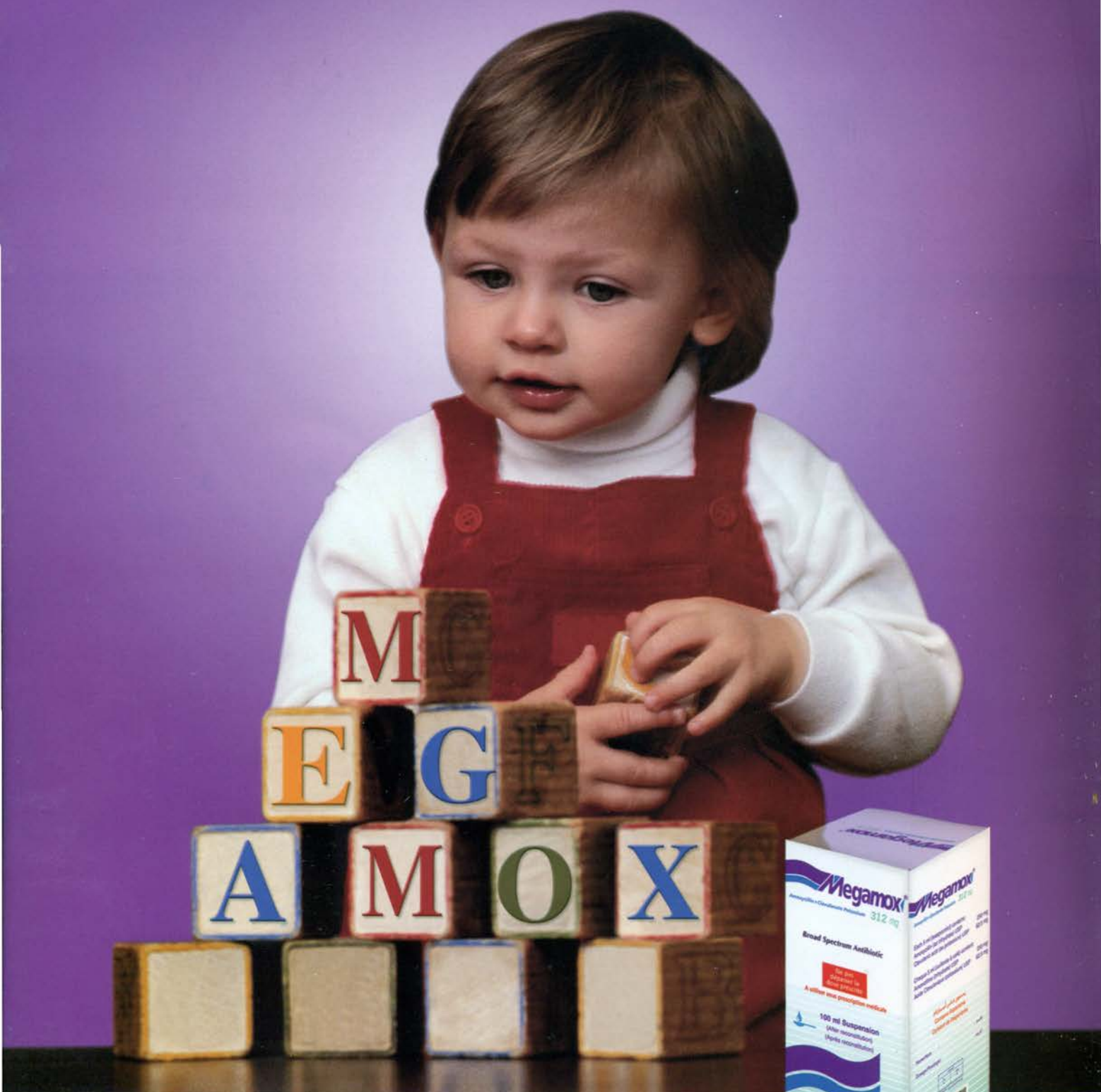

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Welcome from President of S.A.P

On behalf of Sudanese Association of Paediatricians I would like to welcome you to Khartoum and Iam delighted that you are able to join us for our 17th Congress of the Association. Special welcome to the international guests and speakers and representatives of the The East African and Arab Paediatric Associations and of course our expatriate Sudanese paediatricians

Our Program this year promises to be exciting and rewarding as usual. It includes many workshops, symposia, oral presentations and posters in addition to an exhibition and a social program. Senior experts as well as young researchers including medical students will be participating. In addition to the other themes we are going to have symposia on adolescent health and child health problems in East Africa. On this occasion our electronic version of Sudan Journal of Paediatrics will be launched.

It is our firm belief that this conference will facilitate a continuous exchange of knowledge and information which will enhance the quality of care provided to the newborns, children and adolescents of Sudan and the region.

Sudan is a beautiful country of great culture and heritage so make sure you enjoy that besides the academician.

Thanks to all those who made this event a success including the executive committee, the conference committees, the speakers, the donors as well as Soba University Hospital and The Frienship Hall for hosting the activities and moreover you all for joining us

Prof. Mohamed Ahmed Abdallah
President of S.A.P

Invitation from the Scientific Committee

On behalf of the members of the scientific committee and as a chairman, I would like to welcome you all to the 17th congress of the Sudanese Association of Paediatricians SAP.

Within this book you will find the scientific program for the biannual 17th congress of SAP. This time it emphasizes the local paediatric problems and local research. Nevertheless, regional and international concerns are also preserved. The themes are: Infectious diseases, endocrine and renal diseases. A special addition has been a focus into adolescent problems.

We accepted more than 90 abstracts either for oral or poster presentations and we apologize for the ones which we could not accommodate this time. The congress also will include 11 plenary sessions and 15 parallel sessions in 3 different halls. We have organized for 10 pre-congress workshops in collaboration with the different subspecialties. More than 26 speakers from different parts of the world kindly accepted to participate in this congress; special thanks to all of them. I am sure it will be a very lucrative and stimulating program and I hope that we will enjoy it.

Finally, I would like to thank all contributors and specially the members of the scientific committee who worked very hard over the last year putting together the pieces that made this event a reality.

Thank you very much

Prof. Eisa Osman El-Almin

Chairman of the Scientific Committee

S.A.P Executive Council 2009-2011

Prof. Mohamed Ahmed Abdalla	President
Prof. Ali Habour	Vice President
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Dr. Mohamed B. Abdelraheem	Assistant Secretary General
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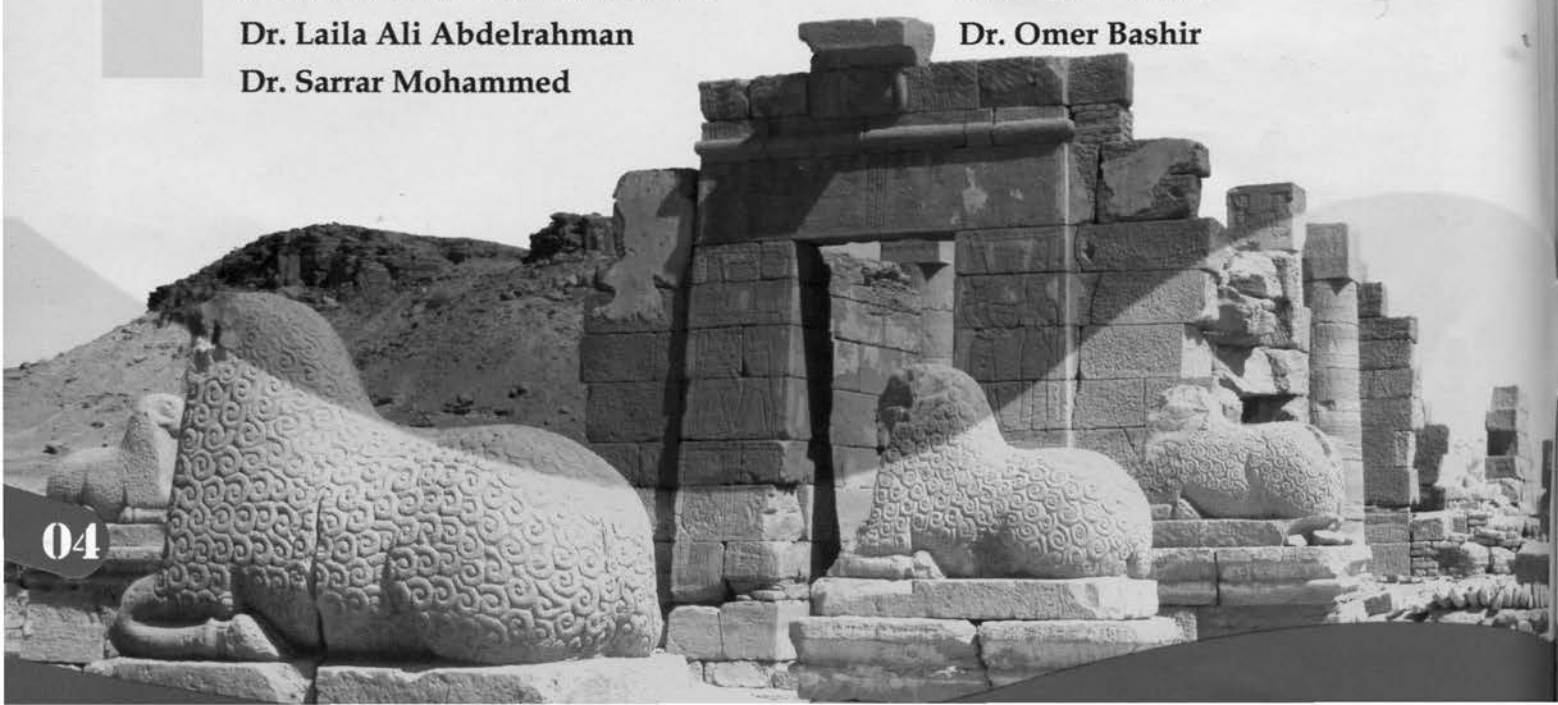
Dr. Laila Ali Abdelrahman	Dr. Omer Bashir
Dr. Sarrar Mohammed	



Successive Presidents of the Sudan Association of Paediatricians

Prof. Mahmoud Mohamed Hassan	1967 - 1978
Prof. Hafiz Elshazali	1978 - 1980
Prof. Abdelmoniem Elseed	1980 - 1982
Prof. Mohamed Ibraheem Ali Omer	1983 - 1985
Dr. Yassin AbuTurki	1987 - 1989
Prof. Mohamed Ibrahim Ali Omer	1989 - 1991
Prof. Gaffar Ibn Ouf Sulaiman	1991 - 2001
Dr. Elsir Hashim	2001 - 2003
Prof. Zein ElAbdeen Karrar	2003 - 2005
Prof. Salah Ahmed Ibrahim	2005 - 2007
Prof. Mabyou Mustafa	2007 - 2009
Prof. Mohamed Ahmed Abdullah	2009 - 2011

Opening Ceremony

- Holly Quran
- President, Sudan Association of Paediatricians
- Head, Ministry of health Paediatric Advisory Council
- UNICEF Representative
- WHO Representative
- Music Band
- President, Sudanese Medical Society
- Minister of Health
- Music Band
- Opening of the Pharmaceutical Exhibition

The Main Themes of the Scientific Program

Adolescent Medicine
Endocrinology
Infectious Diseases
Medical Education
Nephrology
Paediatric Pharmaceuticals
Miscellaneous

Congress Activities:

Congress Activities:
Precongress Courses
Symposia
Workshops Plenary Lectures
Social Activity
It is an important gathering for all Paediatricians from different parts of the Sudan and Paediatricians abroad

Organizing Committees

Sudanese Association of Paediatricians SAP Congress Committees

Main Organizing Committee:

Prof. Mohamed Ahmed Abdallah	Congress President

Scientific Committee:

Prof. Eisa Osman El-Almin	Chairman
Dr. Abdelmoneum Hamid	Secretary
Dr. Fatah Alrahman Mohamed Abbas	
Dr. Iman Bakry	
Dr. Maha Abdelmoniem Elsayed	
Dr. Mohamed Khalil	
Dr. Satti Abdulrahim Satti	
Dr. Yasmin Mahgoub Obeid Taha	
Dr. Bakhitta Attallah	

Financial Committee:

Dr. Amani Nouri	Chairman
Dr. Yousif Mukhtar	Secretary
Dr. Younis Abdelrahman	
Dr. Amani Gindeel	

Services & Information Committee

Dr. Walyeldin Elnour	Chairman
Dr. Siham Ahmed Hassab Alrasoul	Secretary
Dr. Rashid Allidir	
Dr. Hind Abdelrahman	
Dr. Enaam Nouraldayem	

Medical Journal Committee:

Dr. Satti Abdelrahim	Chairman
Dr. Bkhitth Atallah	Secretary
Prof. Mabyou Mustafa	
Prof. Mohamed Ahmed Abdalla	
Prof. Abdulaziz El amein	
Dr. Mohamed Osman	
Dr. Mohamed Osman Moutawakel	
Dr. Mohamed Babikir	
Dr. Elham Mohammad Omar	

Conference Secretariat:

Dr. Mohamed Babikir	Chairman
Mr. Hassan A. Sadeg	Secretary
Dr. Walyeldin Elnour	
Mr. Abdelmalik Ahmed Khair	

Guest Speakers

Dr. Abdulmajeed AlDrees
Consultant Neurophysiology, Faculty of Medicine, King Saud University, Riyadh-KSA

Dr. AbdulRahman M. Alnemri
Associate professor of pediatric, Consultant Neonatologist, Chairman of pediatric dep. college of medicine, Riyadh - KSA

Dr. Abubakr A. Imam
Head, Nephrology Section, Children's Hospital, King Fahad Medical City, Riyadh - KSA

Dr. Ali El Sanousi
Consultant Neonatologist, Prince Salman Hospital
Riyadh - KSA

Dr. Ali Halabi
President of PAN Arab Paediatric Association
Oman – Jordan

Dr. Atul M. Kanikar
Representative of the International Paediatric Association (IPA) – Adolescent Group. Practicing pediatrician, Canada corner, Nasik (Maharashtra), Bombay - India

Dr. Bahaeldin Hassan
Pediatrics ICU, Hamad Medical Corporaion, Doha - Qatar

Dr. Esmehan Elkheir
Head Adolescent Medicine Department, Ministry of Health
Sudan

Prof. Faisal Ahmed
Consultant Endocrinologist at the Royal Hospital for Sick Children, Yorkhill, Glasgow - UK

Dr. Hadi Al-Malik
Senior Consultant Paediatrician, Child Neurology & Developmental Medicine, Clinical Ass professor, Faculty of Medicine, UAE University, Neuroscience Centre, Tawam hospital, Al Ain - UAE

Dr. Haitham El Bashir
Developmental pediatrician and head of developmental Pediatrics and Children Rehabilitation, Hamad Medical Corporation, Doha - Qatar

Dr. Khalid Bshesh
Head Section, Pediatric Critical Care Medicine, Senior consultant Pediatric Intensivist, Hamad Medical Coorporation, Doha – Qatar

Dr. Khalid Hussein
Reader & Consultant Paediatric Endocrinologist. London Centre for Paediatric Endocrinology & Metabolism Great Ormond Street Hospital for Children NHS Trust
London - U K

Dr. Mamoun Elawad
Paediatric Gastroenterologist & Senior Lecturer, Great Ormond Street Hospital and the Institute of Child Health UCL. -UK

Dr. Mohamed Elhassan Abdalla
Consultant Medical Education Jizan – KSA

Dr. Mohamed Elzahrani
Pediatric Infectious diseases Consultant, Head Department of Pediatrics, Security Force Hospital, Riyadh – KSA

Dr. Mohammad M. Kabiraj
Consultant Neurophysiology, Faculty of Medicine, King Saud University, Riyadh - KSA

Dr. Mohammed Zain Seidahmed
Consultant Neonatologist, Security Forces Hospital

Prof .Mustafa Abdalla M. Salih
Professor, Division of Pediatric Neurology, Department of Pediatrics, College of Medicine, King Saud University
Riyadh - KSA

Dr. Omer Bashir
Head department of Neonatology, Consultant Neonatologist, Security Forces Hospital, Riyadh - KSA

Dr. Osama Y. Al Gibali
Consultant Pediatric Intensivist, Hamad Medical Coorporaion, Doha - Qatar

Dr. Rob Forsyth
Senior Lecturer in Child Neurology, Newcastle University
London - UK

Dr. Sami Ahmed
Consultant Paediatric Neonatologist, Cork University Maternity Hospital & Department of Child Health & Paediatrics, University College Cork (UCC), Ireland

Dr. Sarar Mohamed
Head department of Paediatric Endocrinology, King Khalid University Hospital & College of Medicine, King Saud University, Riyadh - KSA

Dr. Tarig Mohammed Osman
Consultant in Paediatric Emergency Medicine, Assistant Professor of Paediatrics, King Saud Bin AbdulAziz University, Riyadh - KSA

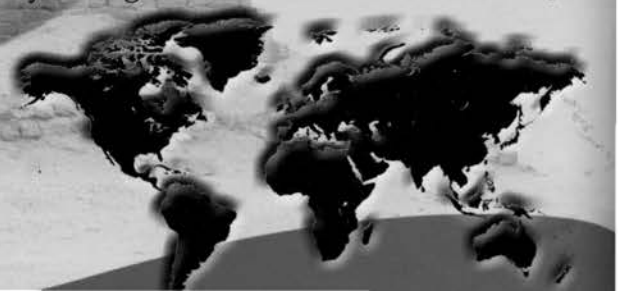
Ms. Carmelyn Royo Cortes
Senior Nurse, Security Forces Hospital Program
Riyadh - KSA

Ms. Diane Elaine Whittier
Senior Nurse, Security Forces Hospital Program
Riyadh - KSA

Ms. Freweini Kidane Asgedom
Home Health Coordinator, Security Forces Hospital Program
Riyadh - KSA

Representatives of the East African Paediatric Association:

Dr. Daniel Tumwine	Kambala - Uganda
Dr. David Githanga	Nairobi - Kenya
Dr. Lisine Tuyisenge	Kigali - Rwanda
Dr. Namala p. M. Kopi	Dar- Elsalam - Tanzania
Dr. Sabrina Kitaka	Kambala - Uganda
Dr. Sekela D. Mwakusa	Dar- Elsalam - Tanzania
Dr. Thomas Ngwiri	Nairobi - Kenya
Dr. Tsighe Andeberhan	Asmara - Eriteria
Dr. Telahon Teka	Addis Ababa - Ethiopia
Dr. Yayeh Negash	Addis Ababa - Ethiopia



Preparatory Congress Workshops

دورة الكشف على الوليد ومكافحة العدوى - قابلات

المكان: مستشفى القابلات أم درمان الزمان: ١٢-١٣ اكتوبر ٢٠١١ م

التاريخ	الزمن	الموضوع	مقدم الموضوع
الاربعاء ١٢ أكتوبر ٢٠١١م	09:00 - 08:30	التسجيل - مقدمة	
	10:00 - 09:00	انعاش الوليد (محاضرة)	د. عبد المنعم
	11:00 - 10:00	مشاكل التنفس،امراض القلب،حالات الجراحة الطارئة عند حديثى الولادة	د.بدرية
	11:30 - 11:00	Break	
	12:30 - 11:30	التحصين+ العدوى عند الاطفال حديثي الولاد ة	د. وداد
	13:30 - 12:30	الرضاعة الطبيعية	د. راشد الليدر
	14:00 - 13:30	Break	
	15:00 - 14:00	علامات الخطورة عند الوليد ودواعى الاحالة	د.صفاء
	16:00 - 15:00	الاطفال الخدج وناقصي الوزن	د.عبد الحليم
		الختام	
الخميس ١٣ أكتوبر ٢٠١١م	10:30 - 08:00	الوقاية من العدوى ورعاية الاطفال حديثى الولادة (نظري ووعملي)	س. فائزة ، س. رشيدة
	11:00 - 10:30	Break	
	11:55 - 11:00	انعاش الوليد (عملي) - ٣ مجموعات	د. عبدالمنعم ، د. بدرية ، د. اورينب
	12:50 - 11:55	الكشف على الوليد (عملي) - ٣ مجموعات	د. صفاء ، د. ابتسام ، د. محاسن
	13:45 - 12:50	عرض الحالات فى انعاش الوليد (سيناريوهات) - ٣ مجموعات	د. عبدالحليم ، د. وداد ، د. آمال
	14:15 - 13:45	Break	
	15:15 - 14:15	الإختبار	
	16:00	الختام وتوزيع الشهادات	

Paediatric Nephrology Workshop

Date: Thursday, 20/10/2011 Venue: Noura Centre Hall – 2nd floor

Speakers:

Dr. Abu Bakr Imam
Dr. Safaa Medani
Dr. Rashid Ellidir
Dr. Ghada Osman
Dr. El-Tigani M. A. Ali
Dr. Mohamed B. Abdelraheem
Dr. Aya AlMeghrabi

Time	Lecture	Speaker
08:30 – 08:45	Opening	SAP Representative
08:45 – 09:15	Hyponatraemia in Children	Dr. Abu Bakr Imam
09:15 – 09:45	Hypertension in children	Dr. Abu Bakr Imam
09:45 – 10:15	Management of Minimal Change Nephrotic Syndrome	Dr. M. B. Abdelraheem
10:15 - 10:45	Haemolytic Uraemic Syndrome – Update	Dr. Safaa Medani Dr. Aya AlMeghrabi
10:45 – 11:30	Discussion	
11:30 – 12:00	Breakfast and Coffee Break	
12:00 – 12:30	Case Presentation and Discussion	Dr. Safaa Medani
12:30 – 13:00	Case Presentation and Discussion	Dr. Rashid Ellidir
13:00 – 13:30	Case Presentation and Discussion	Dr. Aaya Elmeghrabi
13:30 – 14:00	Case Presentation and Discussion	Dr. Ghada Osman
14:00 – 14:30	Closing Remarks	

Neonatal Workshop

Neonatology Sub Committee:

1- Dr. Mohamed Khalil
2- Dr. Abdelhalim Merghani
3- Dr. Eiman Bakri Ali
4- Dr. Ilham Mohamed Omer
5- Dr. Widad Elsheikh
6- Dr. Safaa Nasr M.Ahmed
7- Dr. Orienib Hamid

Speakers and Facilitators:

1. Dr. Omer Basheir
2. Dr. Mohamed Zain
3. Dr. Sami Elsir
4. Dr. Ali Alsanosi
5. Dr. Mutaz Orabi
6. Dr. Ahmed Abdulhadi
7. Ahmed Al Ajab
8. Prof. Eisa Alamin
9. Prof. Salah Ahmed Ibrahim
10. Dr. Mohamed Khalil
11. Dr. FathAlrahman M Abbas
12. Dr. Abdulhaleem Mergani
13. Dr. Widad Elsheikh
14. Dr. Safa Nasr
15. Dr. Eiman Bakri
16. Dr. Magdi Ali Mursi
17. Dr. Abdolmoneim Al amin
18. Dr. A- Monem Hamid
19. Dr. Ilham M Omer
20. Dr. Tag Elsir Ahmed
21. Dr. Sofia Mohamed
22. Dr. Mohamed Ali Obeid
23. Dr. Orainib Hamid
24. Dr. Badria Hamid
25. Dr. Amal Abdulbagi
26. Dr. Ibtisam H salih
27. Dr. Mahasin Ibrahim
28. Dr. kameel Kamal Kamil
29. Dr. Rasheidah Abdulfattah
30. Dr. Fayza Nasr
31. SR. Freweini Kidane A.
32. SR. Diane Whittier
33. SR. Carmelyn Cortes
34. Sister. Fatima Adam
35. SR. OmSalama Fadul
36. Eng. Husham Mohd

Neonatal Workshop – Doctors

Day I : Date: 20-10-2011 Time: 08:30 am – 04:30 pm Venue: Examination Centre - Skills Lab1. Hall

Time	Topic	Presenter
08:30 – 09:00 am	Resuscitation and stabilization of the newborn Lecture	Dr. Sami Elsir
09:00 – 09:45 am	**Resuscitation and stabilization of the newborn – Hands on**	
Group 1 Facilitators: Dr. Ahd Abdulhadi	Group 2 Facilitators Dr. Moh Ali Obeid	Group 3 Facilitators: Dr. Ilham Mohamed
09:45 – 10:15 am	**Blood gases - lecture**	**Dr. Mohamed Zain**
10:15 – 10:30 am	Coffee Break	
10:30 – 11:30 am	Blood gases interpritation – Case senarios	Dr. Mohamed Zain
11:30 – 12:00 am	**Mechanical Ventilation Session**	
12:00 – 01:00 pm	Session A: Lectures 1. Respiratory Physiology 2. Principles of ventilation 3. Types of ventilators 4. Types of ventilators	Dr. Omer Basheir
01:00 – 01:45 pm	Lunch & Prayer Break	
01:45 – 03:30 pm	**Mechanical Ventilation Session**	
Session B:	Practical Session: Case scenarios and problem solving	
Group 1 Facilitators: Dr. Omer Basheir	Group 2 Facilitators: Dr. mohamed Khalil	Group 3 Facilitators: Dr. Ali Alsanosi

Neonatal Workshop – Neonatal Nurses

Day I : Date: 20-10-2011 Time: 08:30 am – 04:00 pm Venue: Examination Centre - Skills Lab2. Hall

Time	Topic	Presenter
08:30 – 09:00 am	Examination of the Newborn & recognition of the sick one	Dr. Abd alhaleem
09:00 – 09:30 am	Resuscitation and stabilization of the newborn	Dr. Widad
09:30 – 10:00 am	**Resuscitation and stabilization of the newborn – Hands on**	
Group 1 Facilitators: Dr. A. Mirgani	Group 2 Facilitators: Dr. Widad Alsheikh	Group 3 Facilitators: Dr. Ibtisam H.
10:00 – 10:15 am	Coffee Break	
10:15 – 10:45 am	Infection control - Lecture	Dr. Rasheeda
10:45– 11:15 am	**Infection control – Hands on**	
Group 1 Facilitators: Dr. Rasheeda	Group 2 Facilitators: Sister. Fatima Adm	Group 3 Facilitators: Sister. Faiza
11:15– 11:45 am	**Fluid Management – Lecture**	**Dr. Fathalrahman**
11:45 – 12:30 pm	Fluid management – practical session – 3 groups • Equipment: syring & infusion pump etc • Preperation of fluids • Calculation and monitoring of IV fluids	
Group 1 Facilitators: Dr. Amal Abdalbagi	Group 2 **Facilitators: Dr. Widad Alsheikh**	Group 3 Facilitators: Dr. Fathalrahman
12:30 – 01:00 pm	**Enteral feeding – practical approach**	**Sister. Fatima Adam**
01:00 – 01-45 pm	Lunch & Prayer Break	
01:45 – 02:45 pm	**Practical Session: Management of; (3 groups)**	
15 minutes	• Servocontrol • Management of Hypothermia	Eng. Husham Mohd Dr. Eiman Baki
15 minutes	• Phototherapy	Dr. Sofia Mohamed
15 minutes	• Incubator care	SR. Om Salama Fadul

Preconference Neonatal Workshop / Doctors and Nurses – Day II (Session A)
Continuous Positive Airway Pressure (CPAP) Workshop

Time	Session Title		
8:00-8:30	Introduction		
8:30-9:30	CPAP (Physiological effects & Different Modalities) Presenter: Dr. Ahmed Ajab		Facilitators: Dr. Omer Basheir
9:30-10:30	Guidelines for Using CPAP Presenter: Dr. Mutaz Orabi		Facilitators: Dr. Mohd Zain
10:30-11:00	**Breakfast**		
11:00-11:30	CPAP Delivery System (Practical Session)		
	Group (1)	Group (2)	Group (3)
	Facilitator: Dr. Magdi	Facilitators: Dr. Mutaz	Facilitators: Dr. Ali Alsanosi
	Case Scenarios & Trouble Shooting (Interactive Session)		
	Group (4)	Group (5)	Group (6)
	Facilitators: Dr. Ahmed Ajab	Facilitators: Dr. M. Zain	Facilitators: Dr. Ilham
11:30-12:00	CPAP Delivery System (Practical Session)		
	Group (4)	Group (5)	Group (6)
	Facilitator Dr. M. Zain	Facilitator: Dr. Mutaz	Facilitator: Dr. Ali Alsanosi
	Case Scenarios & Trouble Shooting (Interactive Session)		
	Group (1)	Group (2)	Group (3)
	Facilitators: Dr. Ahmed Ajab	Facilitators: Dr. M. Khalil	Facilitators: Dr. A. Al amin
12:00-12:30	CPAP – Current Status & Practical Obstacles in Sudan (Interactive Session) Facilitators: Dr. FathAlrahman – Dr. Magdi - Dr. Tag Alsir		
12:30-13:00	Closing Session (Certificates & Workshop Evaluation)		

Nurses Workshop
Simulated Clinical Experiences (Session B)

Soba Hospital, Friday October 21, 2011, 14:00 – 18:30

Time	Simulated Clinical Experience	Facilitators
14:00 - 14:30	Respiratory Scenario	Freweini Kidane Asgedom Carmelyn Cortes Diane Whittier
14:30 - 15:00	Respiratory Scenario	
15:00 - 15:30	Respiratory Scenario	
15:30 – 16:00	Respiratory Scenario	
16:00 - 16:30	Break	
16:30 - 17:00	Septic Baby Scenario	
17:00 - 17:30	Septic Baby Scenario	
17:30 – 18:00	Septic Baby Scenario	
18:00 - 18:30	Septic Baby Scenario	

Workshop on Epilepsy and Neurophysiology

Date: Thursday, 20.10.2011 **Venue: Examination Centre – Lecture Theatre 2**

08:00 - 08:30	Registration and Coffee
08:30 – 11:30	First session: Epilepsy and Electroencephalography (EEG)
08:30 – 09:15	Basic principle and interpretation of EEG (Dr. M. Kabiraj)
09:15 – 09:30	Discussion
09:30 – 10:15	Classification and clinical features of childhood epilepsy (Prof. Mustafa A. Salih)
10:15 – 10:30	Discussion
10:30 –	Clinical features of neonatal seizures (Dr. Sayed Ali)
11:15 –	Discussion
11:30 –	Early lunch (Breakfast)
Second Session:	Evoked Potential (Brain Auditory Evoked Response [BAER], Visual Evoked Potential [VEP], and Electroretinogram [ERG]
	Basic principle and interpretation of evoked potentials (Dr. Abdulmajeed Aldrees)
	Questions and discussion on the diagnostic importance of evoked potentials for the pediatrician (moderated by Prof. Mustafa A. Salih)
	Prayer break and coffee
	Third session: Nerve Conduction Study (NCS) and Electromyography (EMG)
13:30 –	NCS/EMG: Basic principle, interpretation and pitfalls of NCS (Dr. M. Kabiraj)
14:15 – 14:30	Discussion
14:30 – 15:15	EMG in myasthenia gravis and congenital myasthenic syndromes (Dr. M. Kabiraj)
15:15 – 15:30	Discussion
15:30 – 16:15	The diagnostic importance of NCS/EMG for the pediatrician (Prof. Mustafa A. Salih)
16:15 – 16:30	Discussion
16:30 – 17:00	Overall feedback and closing remarks (Conducted by the Pannel)

Workshop on Epilepsy and Neurophysiology

Date: Friday , 21.10.2011 **Venue: Examination Centre – Lecture Theatre 2**

08:00 - 08:30	Registration And Coffee
08:30 – 09:30	Paediatric neuroradiology - Rob Forsyth
09:30 – 10:00	Case scenarios – Ahlam /Inaam / Hayder /Ilham
10:00 – 10:30	Epilepsy related mortality - Rob Forsyth
10:30 – 11:00	Coffee Break
11:00 – 11:30	Childhood Myoclonic Epilepsy – Dr. Sayed
11:30 – 11:45	Discussion
11:45 – 12:45	EEG and Epilepsy Videos Workshop – Dr. Hadi Malik
12:45 – 13:00	Discussion, Feedback and closure
13:00 – 14:00	Early lunch (Breakfast) and Friday prayer

Clinical Training and Workplace-Based Assessment

Date: 20-21/10/2010 **Venue: Foetal Unit Hall**

Thursday 20/10/2011

Time	Activity	
08:00	Registration	
08:30	Introduction of the participants and workshop	
09:00	Educational Objectives for Registrar Training	
	09:00 - 09:10	Presentation
	09:10 - 09:40	Exercise 1
	09:40 - 10:00	How to write Education Objectives
	10:00 - 10:30	Group Work
	10:30 - 11:30	Group work Presentation and Discussion
11:30	**Breakfast**	
12:00	Principles of Bedside Teaching	
01:15	**Break**	
01:30	Techniques of Bedside Teaching: The One Minute Preceptor	
	01:30 - 01:45	Video Presentation
	01:45 - 02:00	Discussion
	02:00 - 02:20	One Minute Preceptor overview
	02:20 - 02:30	Video Presentation
	02:30 - 03:00	Role Plays
	03:00 - 03:40	Discussion
03:40	**Discussion and Feedback**	
04:00	Close	

Friday 21/10/2011

Time	Activity
08:30	Principles of Assessment
08:45	Advantages and disadvantages of different tools of performance assessment
09:30	Mini Clinical Exam (Mini-Cex)
	09:30-9:50 Overview
	9:50-10:30 Group Exercise
10:30	**Breakfast**
11:00	Mini Clinical Exam
	Group Work Presentation
11:30	Giving constructive feedback
	11:30-11:40 Overview
	11:40-11:55 Video Presentation and discussion
	11:55-12:15 Role play
	12:15-12:45 Discussion
12:45	Discussion and Feedback
01:00	Close

Growth and Growth disorders workshop

Date: 20th and 21st October 2011 **Venue: Soba EDC (Library) Hall**

Objectives:

- Understand the different growth phases and factors involved in each phase.
- Use the appropriate techniques in growth assessment
- Understand the main causes and presentations of abnormal growth.
- Approach and evaluate the different growth disorders.

Organizers:

Dr. Ahmed Yousif Ahmed Ibrahim Dr. Ghada Husein Abdalla

Tutors:

Prof. Mohamed Ahmed Abdullah
Dr. Ghada Husein Abdalla
Dr. Areej Elbashier
Dr. Bashier Elnaim
Dr. Sarar Mohamed
Dr. Ahmed Yousif Ahmed Ibrahim
Dr. Sahar Mohamed Mirghani
Dr. Wiam Arabi

Format:

- Mini lectures
- Small group work
- Case discussion

Needs:

- Stadiometer
- Infantometer
- Tape measure
- Orchidometer
- Skin fold thickness caliber
- Table
- Doll
- For every candidate a folder containing
  Growth charts Problems Pencil, Pen, Rubber
- For every candidate CD containing
  CDC growth charts Bone age Atlas Books

Growth and Growth disorders workshop Thursday 20th October 2011:

Time	Topic	Tutor
08:00 - 08:30	Registration	
08:30 - 09:20	Normal growth	Dr. Ghada Husein
	Growth assessment	Dr. Ahmed Yousif
	Discussion	
09:20 - 10:10	Approach to short stature	Prof. Mohamed A. Abdullah
	Growth hormone therapy	
	Discussion	
10:10 - 11:00	Delayed Puberty	Dr. Sarar Mohamed
	Precocious Puberty	
	Discussion	
11:00 - 11:30	Practical (Growth measurements)	Dr. Wiam, Dr. Sahar, Dr. Bashier
11:30 - 12:00	Break	
12:00 - 12:25	Growth in chronic disorders	Dr. Ghada Husein
	Discussion	
12:25 - 01:15	Tall stature	Dr. Ahmed Yousif
	Obesity	Dr. Areej Elbashier
	Discussion	
01:15 - 01:30	Break	
01:30 - 03:00	Cases and discussion	Team
03:00 - 03:30	Closing and comments	Team

Workshop on Growth and Growth disorders: Friday 21th October 2011:

Time	Topic	Tutor
08:00 - 08:30	Registration	
08:30 - 09:15	Normal growth	Dr. Ghada Husein
	Growth assessment	Dr. Ahmed Yousif
	Discussion	
09:15 - 10:05	Approach to short stature	Prof. Mohamed A. Abdullah
	Growth hormone therapy	
	Discussion	
10:05 - 10:30	Growth in chronic disorders	Dr. Ghada Husein
10:30 - 11:00	Break	
11:00 - 11:45	Delayed Puberty	Dr. Sarar Mohamed
	Precocious Puberty	
	Discussion	
11:45 - 12:15	Practical (Growth measurements)	Dr. Wiam, Dr. Sahar, Dr. Bashier
12:15 - 01:00	Tall Stature	Dr. Ahmed Yousif
	Obesity	Dr. Areej Elbashier
	Discussion	
01:00 - 02:00	Break	
02:00 - 03:00	Cases and discussion	Team
03:00 - 03:15	Closing and comments	Team

Paediatric ICU Workshop

Date: 20th and 21st October 2011 Venue: Soba Examination Centre – E. Learning Hall

The programme includes a wide range of topics including Initiation, Maintenance, Weaning of Assisted Ventilation & Special Ventilatory Techniques.

Course Organizer: Dr. Abdelmoniem Mohamed Hamid

Course Tutors:

Dr. Khalid Bshesh	Dr. Osama Algibali	Dr. Baha Eldin H. Ahmed
Dr. Abdelmoniem M. Hamid	Dr. Mahasin Ibrahim	Dr. Badria Hamid
Dr. Amal Abdelbagi	Dr. Amani Abdelrahman	Dr. Nuha Sharafaldeen
Dr. Moawia Altayeb	Dr. Fakhri Elhadi	Dr. Mohamed El Hadi M.

DAY 1: Initiation, Maintenance and Weaning, complication of mechanical Ventilation

08:30	Introduction	
08:45	AIRWAY MANGMENT	Dr. Khalid
09:10	Modes of ventilation - paediatrics	Dr. khalid
09:35	Non invasive ventilation CPAP, BIPAP	Dr. Baha
10:10	Ventilation according to path physiology – paediatrics PART 1 ARDS	Dr. osama
10:30	Ventilation according to path physiology – paediatrics PART 2 ASTHMA .CARDIC	Dr. Khalid
11.00	Blood gases interpretations and changing the ventilator settings	Dr. Baha
11:30	Breakfast	
12:00	Weaning and extubation	Dr. Osama
12:20	Complication and adverse effect of mechanical ventilation	Dr. Khalid
12:50	Stuck on the ventilator, what happen next? Trachestomy or withdrawal of support?	Dr. Osama
01:15 - 01:30	Tea break	
01:30 - 02:00	Anaesthesia in PICU - sedation, analgesia and paralysis	Dr. Osama
02:00 - 04:00	Demonstration Workshops as allocated and Video session ventilation (Groups rotations throughout both days – see below)	
04:00 - 04:15	Discussion and feed back	
04:15	Close	

DAY 2: Approach with critical ill child

08:30	Shock in PICU	Dr. Khalid
09:15	Fluid and electrolyte disturbance	Dr. Moniem
10:00	Monitoring head injury and management of intracranial hypertension	Dr. Mahasin
10:30	Breakfast	
11:00	Management of sudden collapse in ventilated child	Dr. Osama
11:30	Post operative management	Dr. Baha
12:00 - 01:00	Demonstration Workshops (Groups rotations throughout PICU scenarios, procedures,)	
01:00 - 02:00 pm	Friday Prayers	
02:00 - 03:00 pm	Demonstration Workshops (continued)	
03:00 - 03:15 pm	Workshop session	
03:15	Course closure and evaluation	

Demonstration Workshops:

The following eight 30 minute's interactive workshops will run over both afternoons. Each delegate will rotate through every workshop over the two days, therefore completing 4 workshops per afternoon.

1. Pneumothorax and chest drain
2. Long lines, arterial lines and central lines
3. Paediatric conventional ventilators
4. Monitoring the ventilated child
5. CPAP ventilation
6. Stabilization and Transport incubators and ventilators
7. Scenarios in PICU
8. Airway NIV O2 delivery devices, (Oral and Nasal airway BMV,ETT- LMA,Tube fixation, Inline suctioning, Suctioning pessures, Intubation setup).

Research Methodology Workshop

Date: 20th and 21st October 2011 **Venue: Soba EDC (Library) Hall**

The workshop is about clinical trials. Participants are expected to acquire competencies pertinent to the preparation and conduction of clinical trials.

Objectives:

By the end of the workshop, participants are expected to be able to:

- Define & describe study designs in the field of healthcare
- Define & describe the various types of clinical trials
- Carry out the various steps of planning for clinical trials including selecting a research topic, formulating a research question & research objectives, deciding on a study design, reviewing the literature, preparing a data collection tool, deciding on the sampling technique & data analysis
- Write a convincing research proposal
- Conduct clinical trials while observing all the critical points including sampling, randomization, follow-up, assessment of outcome & minimization of bias
- Use the appropriate statistical test and interpret the results of statistical analysis
- Write a scientific paper
- Prepare and deliver an oral presentation about a research

Day One: Introduction & planning

Time	Activity	Speaker/Facilitator
09:00 - 09:30	**Introduction to the workshop** An ice-breaking sessions in which participants express their expectations from the workshop & their understanding of the clinical trials and research in general	
09:30 - 10:30	**Study designs** The speaker will ask participants to classify study designs in a piece of paper & will then discuss what the participants wrote	
10:30 - 11:30	**Study designs** Participants will be divided into three groups & will be given papers to examine & report on the design used	SGW
11:30 - 12:00	**B r e a k**	
12:00 - 12:30	**Study designs** Each group will present their work. Others will have the chance to critique & comment	SGPS
12:30 - 13:00	**Planning for clinical trials** The speaker will discuss with the participants the steps taken to prepare for clinical trials including selecting a research topic, formulating a research question & research objectives, deciding on a study design, reviewing the literature, preparing a data collection tool, deciding on the sampling technique & data analysis	
13:00 - 13:30	**Coffee Break & Prayer**	
13:30 - 14:30	**Planning for clinical trials** Participants will be divided into six buzz groups & will be asked to discuss & report on the planning issues, namely selecting a research topic, formulating a research question & research objectives, deciding on a study design, defining the population, calculating the sample size, reviewing the literature, preparing a data collection tool, and deciding on the sampling technique & data analysis	
14:30 - 15:00	**Writing a research proposal** The speaker will discuss with participants the technique & format of a convincing research proposal	

Assignments: Each participant will be asked to write a mock research proposal for a clinical trial

Day Two: Conduction, analysis & reporting of clinical trials:

Time	Activity	Facilitator
09:00 - 10:30	**The conduction of applied research & clinical trials** The speaker will discuss with participants critical points that need to be considered during the conduction of clinical trials including sample selection, randomization, follow-up of subjects, sources of bias, the concept of blinding, the assessment of the outcome of intervention & the concepts of per protocol & intention-to-treat analysis. The speaker will also touch on research on disease causation & diagnostic tests	
10:30 - 11:00	**Break**	
11:00 - 11:30	**Introduction to statistical analysis** The speaker will discuss with participants the steps of data management starting including its coding, entry, manipulation, cleaning, collation, organization & presentation, and analysis.	
11:30 - 13:00	**Statistical concepts for applied research & clinical trials** The speaker will use the buzz groups techniques to discuss the main statistical concepts used for applied research & clinical trials including event rates, sensitivity, specificity, likelihood ratio, risk ratio, risk reduction, number needed to treat, chi square test, t-test, correlation & regression	
13:00 - 13:30	**Coffee Break & Prayer**	
13:30 - 14:15	**The reporting of research (1)** The speaker will discuss with participants the writing of a research article	
14:15 - 15:00	**The reporting of research (2)** The speaker will discuss with participants how they can prepare and deliver an oral presentation	
	Wrap up & feedback	

Midwives Workshop

Date: 21 October 2011 **Venue: Noura Centre Hall – 2nd floor.**

Time	Topic	Speaker
08:00 - 08:30	Introduction / Orientation	M. Khalil
08:30 - 08:50	Antenatal Care / Recognition of High Risk Pregnancy	Dr. Kameel Kamal
08:50 – 09:10	Preparation for Delivery, "Zain Box"	Dr. Zain
09:10 – 09:40	Post Partum Hemorrhage	Dr. Kameel Kamal
09:40 – 09:55	Examination of the Newborn	Dr. Zain
09:55 – 10:10	Resuscitation of the Newborn-The Golden Minute	Diane Whittier
10:10 – 10:30	Break	

	Simulation Workshops		
10:30 – 13:30	Newborn Resuscitation Freweini K. A. / Diane Whittier	Post Partum Hemorrhage Dr. Kameel / Carmelyn Cortes	Examination of the Newborn Dr. Zain
10:30 – 11:15	Workshop A	Workshop B	Workshop C
11:15 – 12:00	Workshop B	Workshop C	Workshop A
12:00 – 12:15	Break		
12:15 – 13:00	Workshop C	Workshop A	Workshop B

Programme at a glance

Pre-congress Workshops in Collaboration with Soba University Hospital

Thursday 20th October 2011 (Pre-congress Workshops)	Friday 21st October 2011 (Pre-congress Workshops)
Paediatric Nephrology One Day Workshop Venue: Noura Centre Hall – 2nd floor. Time: 08:30 am - 02:30 pm	**Midwives Workshop** One Day Workshop Venue: Noura Centre Hall – 2nd floor. Time : 08:00 am - 01:00 pm
Neonatology Workshop	
Doctors: Venue: Examination Centre - Skills Lab1. Hall Time: 08:30 am - 04:30 pm --- Nurses: Venue: Examination Centre - Skills Lab2. Hall Time: 08:30 am - 04:00 pm	Doctors & Nurses : Venue: Examination Centre - Skills Lab1. Hall Time: 08:00 am - 01:00 pm Nurses Workshop: Simulated Clinical Experiences (Session B) Venue: Examination Centre - Skills Lab1. Hall Time: 02:00 pm - 06:30 pm
Neurology & Epilepsy Workshop	
Venue: Examination Centre – Lecture Theatre 2 Time: 08:00 am - 05:00 pm	Venue: Examination Centre – Lecture Theatre 2 Time: 08:00 am - 02:00 pm
Doctors Training and Evaluation Workshop (For Paediatricians Only)	
Venue: Foetal Unit Hall Time: 08:00 am - 04:00 pm	Venue: Foetal Unit Hall Time: 08:00 am - 01:00 pm
Paediatric Endocrinology Workshop	
Venue: Soba EDC (Library) Hall Time: 08:00 am - 03:30 pm	Venue: Soba EDC (Library) Hall Time: 08:00 am - 03:15 pm
Paediatric Intensive Care & Emergency	
Venue: Examination Centre – E. Learning Hall Time: 08:30 am - 04:15 pm	Venue: Examination Centre – E. Learning Hall Time: 08:30 am - 03:15 pm
Research Methodology Workshop	
Venue: Soba EDC (Library) Hall Time: 09:00 am - 03:00 pm	Venue: Soba EDC (Library) Hall Time: 09:00 am - 03:00 pm
---	Opening Ceremony Friendship Hall (Presidential Hall) Time: 07:30 pm - 10:30 pm

All workshops are held at Soba University Hospital

Programme at a glance

Saturday 22nd Oct	Regional Hall 5th Floor	Africa Hall 4th Floor	Omdurman Hall 3rd Floor
08:30 - 10:30	Plenary	----------	----------
10:30 - 11:00	Break Fast - Posters		
11:00 - 13:15	Session (1) Adolescent Medicine Forum	Session (2) Paediatric Emergency and Intensive Care	Session (3) Haematology
13:15 - 13:40	Coffee Break - Prayer - Posters		
13:40 - 16:10	Session (4) Endocrinology 1	Session (5) Gastroenterology and Nutrition	Session (6) Neonatology 1
19:30 - 22:30	Dinner (Venue TBA)		

Sunday 23rd Oct	Regional Hall 5th Floor	Africa Hall 4th Floor	Omdurman Hall 3rd Floor
08:30 – 10:30	Plenary	----------	----------
10:30 – 11:00	Break Fast - Posters		
11:00 – 13:15	Session (7) Endocrinology 2	Session (8) Neurology and Neurobehaviour	Session (9) Neonatology 2
13:15 – 13:40	Coffee Break - Prayer - Posters		
13:40 - 16:10	Session (10) Infectious diseases & Tropical	Session (11) Miscellaneous	Session (12) MD Presentations Medical Students Research
19 :30 - 22:30	East African Paediatric Association (EAPA) Symposium (Venue TBA)		

Monday 24th Oct	Regional Hall 5th Floor	Africa Hall 4th Floor	Omdurman Hall 3rd Floor
08:30 - 10:00	Plenary	----------	----------
10:00 - 10:30	Break Fast		
10:30 - 12:30	Session (13) Nephrology	Session (14) Paediatric Cardiology	Session (15) Infections/Miscellaneous
12:30 - 12:45	Coffee Break - Prayer		
12:45 - 15:30	General Assembly SAP	----------	----------

Scientific Program

Saturday 22nd October

Plenary Lectures

Regional Hall 8:30 – 10:30

Chairs: Prof. Hafiz Alshazali, Prof. Mohamed Ahmed Abdullah, Prof. Eisa O.El-Amin, Dr. Yassmin M. Obeid (Reporteur)

P I.	08:30 - 09:00	Child Health Situation in Sudan Dr. Igbal Ahmed Basheir
P II.	09:00 – 09:30	Introducing the Helping Baby Breath (HBB) Program to Village Midwives in Sudan Dr. Sami Ahmed
P III.	09:30 – 10:00	Nitial Approach to the Management of an Infant with Suspected Disorder of Sex Development Prof. Faisal Ahmed
P IV.	10:00 – 10:30	Adolescent Medicine: Experiences, Lessons and Recommendations Dr. Atul M. Kanikar
	10:30 - 11:00	Breakfast

Parallel Sessions

Sessions (1, 2, 3) – (4, 5, 6)

Sessions I: Adolescent Medicine Forum

Regional Hall 11:00 – 13:15

Chairs: Prof. Eisa Osman El-Amin, Dr. Abdalla Abdelrahma, Dr. Attiyat Mustafa Dr. Satti Abdulrahim Satti (Reporteur)

OP01.	11:00 - 11:20	Adolescent Medicine: The present situation and the future Dr. Satti Abdulrahim Satti
OP02.	11:20 - 11:35	Transition to adult period in children with chronic diseases Dr. Safaa Abdulhameed
OP03.	11:35 - 11:50	Smoking in Adolescents Dr. Yousif Mukhtar
OP04.	11:50 - 12:05	Drug abuse in Sudanese Adolescents Dr. Amani Abdulhameed Ahmed Nur
OP05.	12:05 - 12:20	Prevalence and Risk Factors of Depressive Symptoms among Sudanese Diabetic Adolescents Dr. Dalal Khalil Ahmed Fageer
OP06.	12:20 - 12:30	Adolescent Health Situation Analysis Dr. Esmehan Elkheir
	12:30 - 13:15	Comments and Contributions Sheikh. Abdelgalil Alnazir AlKarouri دور الإسلام بما يخص صحة ومشاكل المراهقين والشباب Mrs. Amal Mahmood CDF تجربه المنظمة مع اليافعين Ministry of Social Affairs Alahfad University المشاكل التعليمية وكيفية التعامل معها
	13:15 - 13:40	Coffee Break - Prayer - Posters

Session 2:	**Paediatric Emergency and Intensive Care**	
Africa Hall	**11:00 – 13:15**	
Chairs:	Dr. Khaled K. Bshesh, Dr. Osama Al Gibali, Dr. Abu Median Dr. Abdelmoneim Hamid (Reporteur)	
OP07.	11:00 - 11:25	Presentations and management of cardiac failure in the PICU Dr. Khalid K. Bshesh
OP08.	11:25 - 11:50	Guidelines of Management of Septic Shock in Children; Do they improve the outcome? Dr. O.Y. Al Gibali
OP09.	11:50 - 12:10	Transport of the critically ill or Injured Child Dr. Tarig Mohammed Osman
OP10.	12:10 - 12:25	Purpura Fulminans Dr. Bahaeldin Hassan
OP11.	12:25 - 12:40	The Overseas Transfer Of Sick Children Using Commercial, Non-Medically Dictated Fixed-Wing Aircrafts; The experience Of Hamad Medical Corporation (Hmc) Dr. O.Y. Al Gibali
OP12.	12:40 - 12:55	Systemic inflammatory response syndrome Dr Bahaeldin Hassan
	12:55 - 13:15	Discussion
	13:15 - 13:40	Coffee Break - Prayer - Posters

Sessions 3:	**Haematology**	
Omdurman Hall	**11:00 – 13:15**	
Chairs:	Prof. Mutwali A Majeed, Dr. Bakhieta Attalla, Dr. Malik Ahmed Babiker Dr. Alamin Saeed (Reporteur)	
OP13.	11:00 - 11:25	Some Good News For Sicklers Dr. Malik Ahmed Babiker
OP14.	11:25 - 11:50	The safety and efficacy of total dose iron infusion (TDI) in Sudanese children Dr. Fathelrahman Elawad Ahmed
OP15.	11:50 - 12:15	Management of severe thrombocytopenia in Dengue haemorrhagic fever 2010 in Port Sudan Dr. Amel Aziz
OP16.	12:15 - 12:35	Ntrahepatic cholestasis in patients with sickle cell anemia Dr. Fathelrahman Elawad Ahmed
OP17.	12:35 - 12:55	A Study Of Physical Growth And School Performance In Sudanese Children With Sickle Cell Anemia Dr. Ilham M. Omer
	12:55 - 13:15	Discussion
	13:15 - 13:40	Coffee Break - Prayer - Posters

Session 4: Endocrinology 1
Regional Hall 13:40 - 16:10
Chairs: Dr. Khalid Hussein, Prof. Huda Haroon, Dr. Sarrar Hamza
Dr. Ghada Hussein (Reporteur)

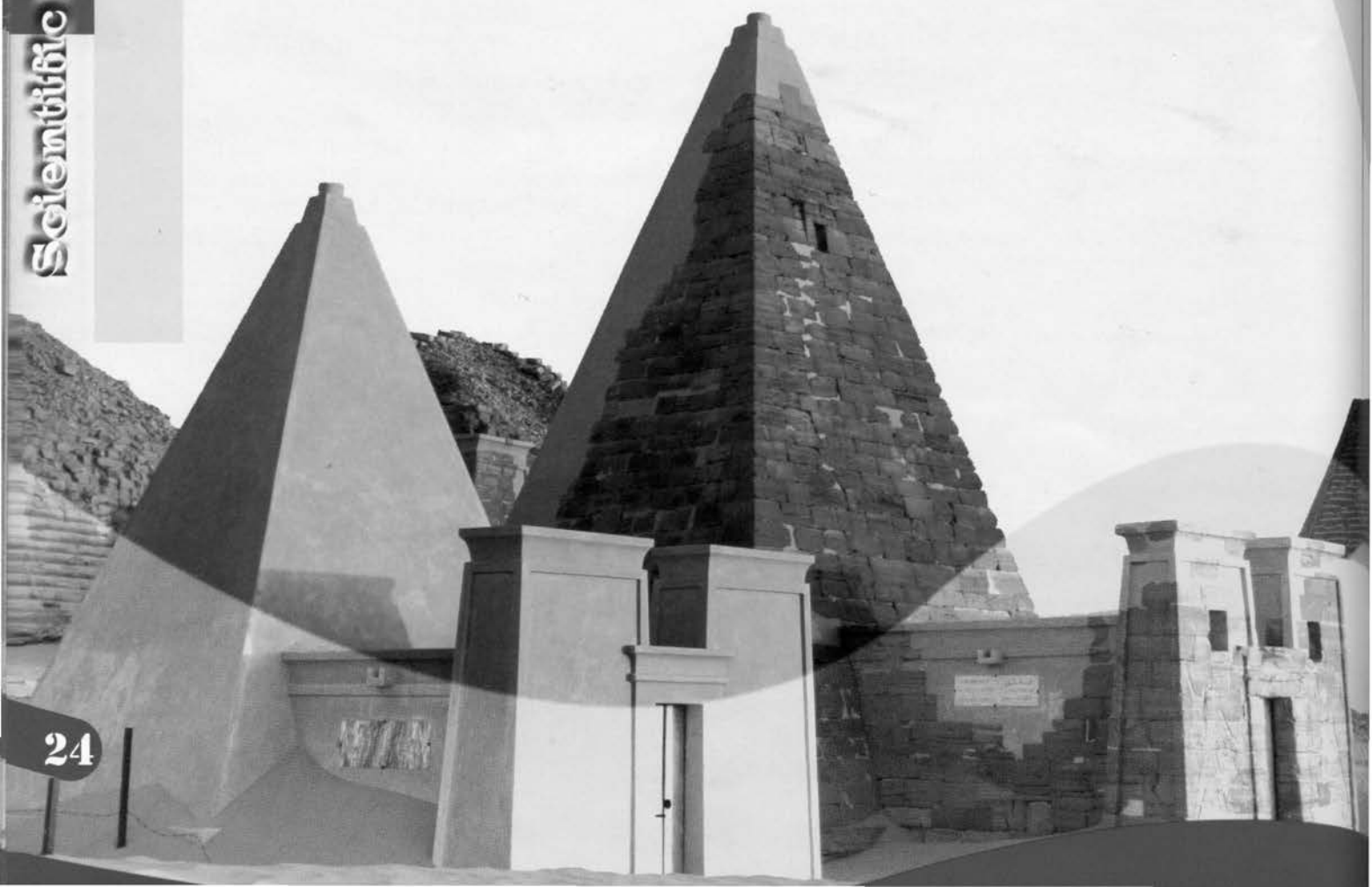
OP18.	13:40 - 14:05	Rare forms of Diabetes Mellitus Dr. Khalid Hussein
OP19.	14:05 - 14:25	Sudan Childhood Diabetes Program Dr. Ilham M. Omer
OP20.	14:25 - 14:45	Services provided by the integrated program for diabetic children at Wadmedani Pediatrics hospital Prof. Huda Haroon
OP21.	14:45 - 15:05	Neonatal Diabetes in Sudan Dr. Samar Abu Samra
OP22.	15:05 - 15:20	Type2 Diabetes in Sudan Dr. Hala Abdelateef Osman
OP23.	15:20 - 15:35	Prevalence of Obesity and overweight among Adolescent males in Khartoum Dr. Mohamed Z. Karrar
OP24.A	15:35 - 15:45	Diabetic Ketoacidosis, Determinants and Mortality Rate in Sudanese Children with Type 1 Diabetes Mellitus Dr. Elwasila B. M.
OP24.B	15:45 - 15:55	Goiter among Sudanese children: 5-years experience of a Paediatric Endocrinology clinic Dr. Huda Abdel Moneim
	15:55 - 16:10	Discussion

Session 5: Gastroenterology and Nutrition
African Hall 13:40 - 16:10
Chairs: Prof. Gaafar Ibnaof, Dr. Mamoun Elawad, Dr. Omayma M. Sabir
Dr. Amin Osman (Reporteur)

OP25.	13:40 - 14:00	Food allergy in children and Adolescents Dr. Mamoun Elawad
OP26.	14:00 - 14:20	Pattern Of Liver Diseases in Sudanese Children Dr. Omayma M. Sabir
OP27.	14:20 - 14:40	Anti-vitamin D Urban Umbrella in Alfanateer Area, Jubail Prof. Swar M.O
OP28.	14:40 - 14:55	Model of Inflammatory Bowel Disease Care in Children and Adolescents Dr .Mamoun Elawad
OP29.	14:55 - 15:10	Causes of Portal Hypertension in Sudanese Children Dr. Omayma M. Sabir
OP30.A	15:10 - 15:25	Prevalence and Impact of Malnutrition among < 5 of Age in Red Sea State (RSS) Dr. Khalid Elkhier Elzein
OP30.B	15:25 - 15:40	Current Breast Feeding (Bf) Practices in Al-Baha Region, Saudi Arabia and Factors Affecting it (Pre & Post – Intervention) Prof. Mahmoud Rashad
	15:40 - 16:00	Discussion

Session 6:	Neonatology 1
Omdurman Hall	13:40 - 16:10
Chairs:	Dr. Abdelhalim Mirgani, Dr. Hazim Abbas, Dr. Sami Elsir Dr. Ilham M. Omer (Reporteur)

OP31.	13:40 - 14:05	Neonatal service in limited resource nations Dr. AbdulRahman M. Alnemri
OP32.	14:05 - 14:20	Community neonatal services in Sudan Prof. Mabyou Mostafa
OP33.	14:20 - 14:35	Facility based neonatal services in Sudan/ Quality of neonatal care in Khartoum state public hospitals Dr. Hiba Mustafa Bashar
OP34.	14:35 - 14:50	Neonatal Resuscitation Training in Sudan - Where are we? Dr. Abdelmoniem M. Hamid
OP35.	14:50 - 15:05	Dongola project: Situational analysis and results Dr. Mohamed Khalil
OP36.	15:05 - 15:25	Dongola project: Progress of the intervention program Prof. Eisa O. El-Almin
OP37.	15:25 - 15:40	Perinatal Neonatal Outcomes Research Study in the Arabian Gulf (PEARL Study) Dr. Nuha Al Nimeri
	15:40 - 16:00	Discussion



Sunday 23rd October

Plenary Lectures

Regional Hall 8:30 – 10:30

Chairs: Dr. Hadi Z. Elmalik, Prof. Younis Abdelrahman, Dr. Rabeh Berir
Dr. El-Tigani M. A. Ali (Reporteur)

P V.	08:30 - 09:00	Neonatal Acute Kidney Injury Dr. Abubakr A. Imam
P VI.	09:00 – 09:30	Developing Paediatric Nephrology Services in a low income country; The Sudan experience Dr. Mohammed Babiker
P VII.	09:30 – 10:00	The Era of Neurogenetics Prof. Mustafa Abdalla
P VIII.	10:00 – 10:30	Epilepsy and Behaviour Dr. Rob Forsyth
	10:30 - 11:00	Breakfast

Parallel Sessions

Session (7, 8, 9) - (10, 11, 12)

Session 7: Endocrinology 2

Regional Hall 11:00 – 13:15

Chairs: Prof. Faisal Ahmed, Dr.Ahmed Ibrahim Elhaj, Dr. Ibrahim Gamar Eldawla
Dr. Wiam Arabi (Reporteur)

OP38.	11:00 - 11:25	Evaluation & Management of Skeletal Dysplasias Prof. Faisal Ahmed
OP39.	11:25 - 11:50	Disorders of Sex Development among Sudanese Children Prof. Mohamed Ahmed Abdullah
OP40.	11:50 - 12:10	Hypoglycaemia in infants Dr. Khalid Hussain
OP41.	12:10 - 12:30	Recognition and diagnostic approach to acute Metabolic disorders in the neonatal period Dr. Sarrar Mohamed
OP42.	12:30 - 12:45	Study on Rickets in Sudanese children Dr. Wiam A. Arabi
OP43.	12:45 - 13:00	Growth assessment among Sudanese children and adolescents with Congenital Adrenal Hyperplasia 21-hydroxylase deficiency: Early versus Late diagnosis Dr. Ahmed Y.A. Ibrahim
	13:00 - 13:15	Discussion
	13:15 - 13:40	Coffee Break - Prayer – Posters

Session 8: Neurology and Neurobehaviour

African Hall 11:00 - 13:15

Chairs: Prof. Mustafa A. M. Salih, Prof. Hayder Alhadi, Dr. Hayat Osman
Dr. Ahlam Abdelrahman (Reporteur)

OP44.	11:00 - 11:20	Evaluation and management of the first seizure Dr. Hadi Al-Malik
OP45.	11:20 - 11:40	Clinical pattern, diagnosis and care of institutionalised autistic Sudanese children Prof. Huda Haroun
OP46.	11:40 - 12:00	Management of Traumatic Brain Injury Dr. Rob Forsyth
OP47.	12:00 - 12:20	Improving recovery after brain injury Dr. Rob Forsyth
OP48.	12:20 - 12:40	Challenges in Epilepsy management in resource poor countries Dr. Haydar El Hadi Babikir
OP49.	12:40 - 13:00	Clinical Pathway for the medical management of children with Down's syndrome Dr. Haitham Albashir
	13:00 - 13:15	Discussion
	13:15 - 13:40	Coffee Break - Prayer – Posters

Session 9: Neonatology 2

Omdurman Hall 11:00 - 13:15

Chairs: Prof. Salah A. Ibrahim, Dr. Omer Bashir, Dr. Mohamed Zein Sid Ahmed
Dr. Mohamed Khalil (Reporteur)

OP50.	11:00 - 11:10	Hypothermia for Neonates with Hypoxic-Ischemic Encephalopathy. Whole Body Hypothermia Vs Selective Head Cooling Dr. Ilham Moh. Omer
OP51.	11:10 - 11:20	Hypothermic Treatment of Hypoxic - Ischaemic Encephalopathy (HIE) Dr. Sami Ahmed
OP52.	11:20 - 11:30	Amplitude-Integrated Electroencephalography: A New Bedside Tool Dr. Ali El Sanousi
OP53.	11:30 - 11:45	Guidelines updates in Neonatal Resuscitation Program (NRP) in Sudan Dr. Sami Ahmed
OP54.	11:45 - 12:00	Epidemiology of Neural Tube Defects at Security Forces Hospital, Riyadh, Saudi Arabia (1996 – 2009) Dr. Mohammed Zain Seidahmed
OP55.	12:00 - 12:15	Strategies of Feeding a Preterm Infant Dr. El Sayed A. A.
OP56.	12:15 - 12:30	Pulmonary Hypertension in the Neonate Dr. Mohamed A. Elhussein
OP57.	12:30 - 12:45	Prevalence of Pulmonary Hemorrhage in NICU at Albaha – KSA Dr. Hamdi Katar Hanafi
OP58.	12:45 - 13:00	Effects Of Nicu Experiences on Development of Premature Infants Freweini Kidane Asgedom
	13:00 - 13:15	Discussion
	13:15 - 13:40	Coffee Break - Prayer – Posters

Session 10: Infectious diseases & Tropical
Regional Hall 13:40 - 16:10
Chairs: Prof. Hassan M. Ahmed, Prof. Mohamed O. Swar, Dr. Kamal M. Kheir
Dr. Yahia Shakir (Reporteur)

OP59.	13:40 - 14:05	Proper use of Antibiotics Dr. Mohammed Alzahrani
OP60.	14:05 - 14:25	Outcome of Haematopoietic Stem Cell Transplantation for Adenosine Deaminase Deficient Severe Combined Immunodeficiency Dr. Amel Hassan
OP61.	14:25 - 14:45	Immunization Challanges: "AEFI" Prof. Mabyou Mustafa
OP62.	14:45 - 15:05	Fever and Cerebral Irritation in Children Prof. Eisa Osman El-Amin
OP63.	15:05 - 15:25	HIV in Sudan: Mother to Child Transmission Dr. Widad Mustafa
OP64.	15:25 - 15:45	Scaling up Antiretroviral treatment, a story of success, Lesson Learned and Constraints. Dr. Nour Elhouda Ata Alla
	15:45 - 16:05	Discussion

Session 11: Miscellaneous
Africa Hall 13:40 - 16:10
Chairs: Prof. Abdelrahman Almufti, Dr. Laila Ali, Dr. Ibrahim Abdelgadir
Dr. Faisal Ahmed (Reporteur)

OP65.	13:40 - 14:00	Situation analysis of childhood blindness in Sudan Dr. Ahmed Fahmi
OP66.	14:00 - 14:20	Cytogenetic Analysis of Sudanese Children with dysmorphic features Dr. Imad Fadl-Elmula
OP67.	14:20 - 14:40	Do we need clinical guidelines, protocols or care pathways? Yes, we do Dr. Haitham El Bashir
OP68.	14:40 - 15:00	Primary Health Care Services Dr. Karimeldin Salih
OP69.	15:00 - 15:20	Well Child Services Structure, Staff, Premises and Activities Dr. Abdelazim Mohamed Mabrouk
OP70.A	15:20 - 15:40	Sudanese Female Doctors in Paediatrics Dr. Inaam Noureldyme
OP70.B	15:40 - 15:55	Patterns of Rheumatological Conditions in Sudanese Children Dr. Yasmin Mahgoub Obeid
	15:55 - 16:10	Discussion

Session 12:	MD Presentations Medical Students Research
Omdurman Hall	13:40 - 16:10
Chairs:	Dr. Suad El-Tigani, Dr. Balla Awad Alseid, Dr. Alshafee Eltayeb Dr. Mawia Altayeb (Reporteur)

OP71.	13:40 - 14:00	Hepatitis B Surface Antigen among Children with Sickle Cell Disease in Some Khartoum State Hospitals Dr. Seham Osman Abuzeid
OP72.	14:00 - 14:20	Prescribing Medication Errors among Paediatric inpatients Dr. R. A. Hussein
OP73.	14:20 - 14:40	Congenital Hypothyroidism in Sudan Dr. Rihab Mohd Mahgub Salih
OP74.	14:40 - 15:05	Cigarette smoking among medical students in (The National Ribat University, January 2011) Dr. Osman Eisa Osman El-Amin
OP75.	15:05 - 15:30	Knowledge, attitude and practices of mothers towards early childhood illness Dr. Aisha M. Abbass
	15:30 - 16:00	Discussion

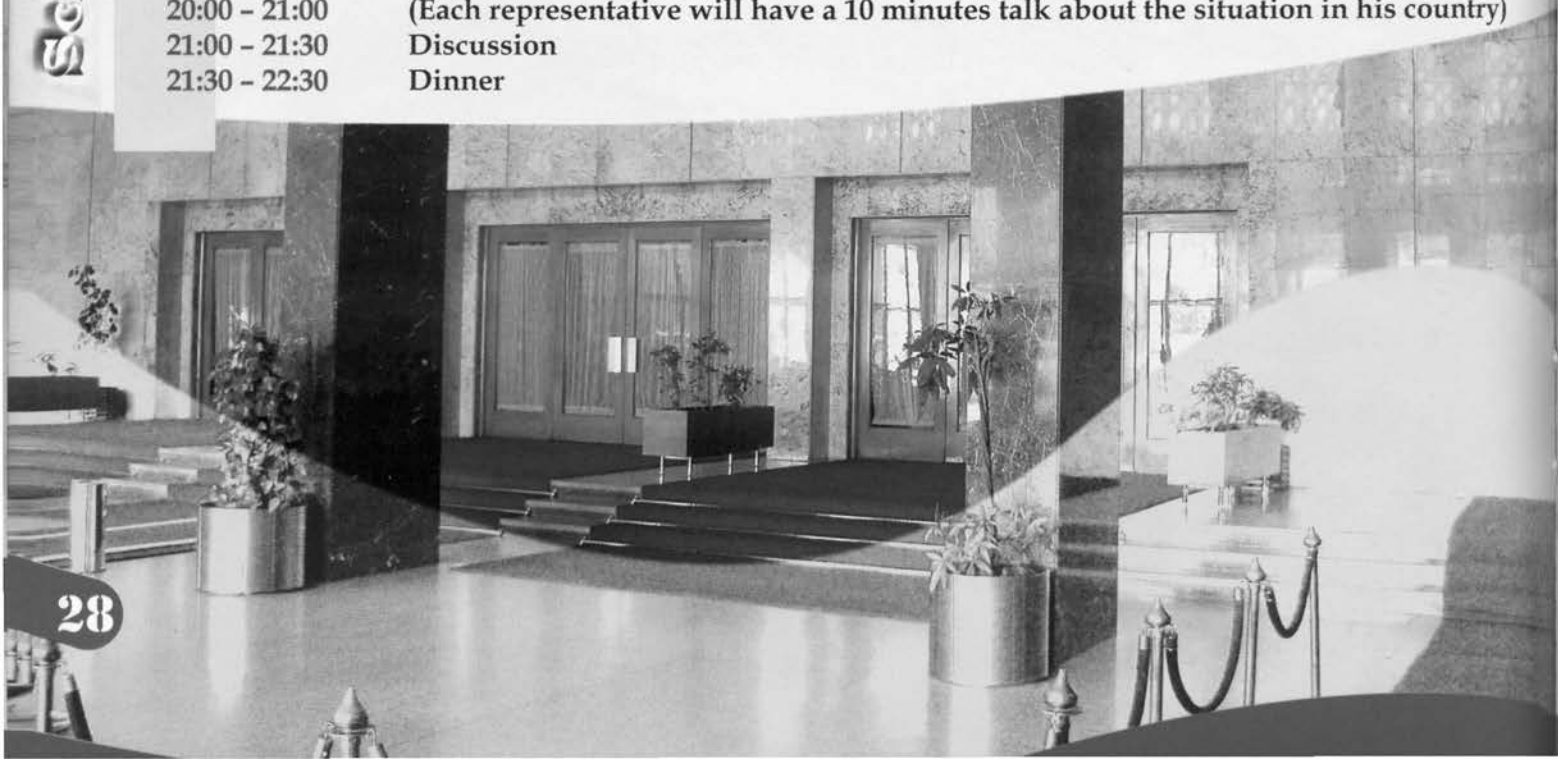
Evening Symposium:	19:30 – 22:30

East African Paediatric Association (EAPA) Symposium (Venue TBA)

Chairs: Prof. Mohamed A. Abdullah, Representative from EAPA, Dr. Tilal Alfadil

Title: Child Health Situation in East Africa

19:30 – 20:00	Welcome
20:00 – 21:00	(Each representative will have a 10 minutes talk about the situation in his country)
21:00 – 21:30	Discussion
21:30 – 22:30	Dinner



Monday 24th October

Plenary Lectures

Regional Hall 8:30 – 10:30

Chairs: Prof. Ali Habour, Prof. Amna M. Salih, Dr. Mahgub Ali Adam
Dr. Fatma Abu Noora (Reporteur)

P IX.	08:30 - 09:00	Teaching and Training of Professionalism and Good Medical Practice in Sudan MD program: can we do better Prof. Zein Karrar
P X.	09:00 – 09:30	Childhood Tuberculosis, Diagnosis and Management Challenges Prof. Mabyou Mustafa
P XI.	09:30 – 10:00	SAP Convoy to the Northern State: Social Experience Dr. Walyeldin Elfakey
	10:00 - 10:30	Breakfast

Parallel Sessions

Session 13, 14, 15

Session 13: Nephrology

Regional Hall 10:30 – 12:30

Chairs: Dr. Abu Bakr Imam, Dr. Alfatih Hashim, Dr. Safaa A. Medani
Dr. Babiker Almubashar (Reporteur)

OP76.	10:30 - 10:50	Challenges in Paediatric Renal Transplantation Dr. Abubkar A. Imam
OP77.	10:50 - 11:10	Urinary Tract Infection in Children – Management Overview Dr. El-Tigani M.A. Ali
OP78.	11:10 - 11:25	Can food allergy be a cause of Nephrotic Syndrome Dr. Rashid Ellidir
OP79.	11:25 - 11:40	Prevalence and control of Hypertension among children with End-Stage Renal Disease on Hemodialysis. Dr. Ayaa El Megharbi
OP80.	11:40 - 11:55	Pattern of Renal Injury in HIV-Infected Children in Omdurman Management & Care Unit-Sudan Dr. Alddai Mohammed Ahmed Alnair
OP81.	11:55 - 12:10	Is Renal Disease in Children A Silent Illness; A Study of Urinanalysis In 3 Primary Schools. Dr. Ahmed Abdelrahim Khalil
	12:10 - 12:30	Discussion
	12:45 - 15:30	General Assembly SAP

Session 14:	**Paediatric Cardiology**	
Africa Hall	**10:30 - 12:30**	
Chairs:	Prof. Abdelmoneim Elseed, Dr. Alfatih Abu Zaid , Dr. Sulafa Khalid Dr. Siham Hasab El Rasoul (Reporteur)	
OP82.	10:30 - 10:55	The Pediatric Echocardiogram: What Should Paediatricians Know Prof. Abdelmoneim Elseed
OP83.	10:55 - 11:15	Primary Rhythm Disorders in Sudanese Children Dr. Sulafa K.M. Ali
OP84.	11:15 - 11:35	The Correlation Of Clinical And Echocardiographic Scores With Blood "Brain Natriuretic Peptide" In Pediatric Patients with Heart Failure Dr. Mutaz Jamaledeen
OP85.	11:35 - 11:55	Short-term Outcome of Different Treatment Modalities of Patent Ductus Arteriosus in Preterm Infants Dr. Nuha Nimeri
OP86.	11:55 - 12:15	Identification of a p.Ser81Arg encoding mutation in SLC2A10 gene of Arterial tortuosity syndrome (ATS) patients Dr. A Eltohami
	12:15 - 12:30	Discussion

Session 15:	**Infections/Miscellaneous**	
Omdurman Hall	**10:30 - 12:30**	
Chairs:	Dr. Fathelrahman Alawad, Dr. Alkheir Khojal, Dr. Khalid Alkhair Dr. Mohamed Gumma Mohamed (Reporteur)	
OP87.	10:30 - 10:50	Paediatric Allergy Dr. Amal Abd Elkarim Elnour
OP88.	10:50 - 11:10	Improved Outcome of Survival of Patients with Chronic Granulomatous Disease Dr. Amel Hassan
OP89.	11:10 - 11:30	Some Hematological & Biochemical Changes In Children with Acute Severe Malaria Who Present With Gastroenteritis in Elobied, Western Sudan. Dr. Mohamed Gomaa Mohamed
OP90.	11:30 - 11:50	Prevalence of Intestinal Schistosomiasis in New Halfa Scheme, Eastern Sudan Dr. Shams Elfalah Musa
OP91.	11:50 - 12:10	Pattern and Determinants of Use of Traditional Treatments in Children Attending Gaafar Ibn Oaf Hospital Dr .Satti Abdelrahim Satti
	12:10 - 12:30	Discussion.

Abstracts

To the Chairmen:

- Please make sure that sessions starts and finishes at the exact time

To the Speakers:

- No personal laptop is allowed, please handover your presentation to the organizing committee at least one hour before the session.
- The lectures is going to be downloaded into SAP website and/or made in CDs. Please if you have any reservations notify the congress organizers

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P I. Child Health Situation in Sudan

Dr. Igbal Ahmed Basheir
MBBS, FEL.SMSB, DRH, Nahid Abdelgadir:

The child health indicators as per the results of the Sudan Household Health Survey 2010; child mortality, Nutritional Status, Breastfeeding, Immunization, prevalence of malaria, suspected pneumonia and diarrhea were analyzed with that of the first round of the survey in 2006. Some of the indicators were related to the results of the health determinants in regard to the mothers' education, wealth index, Household accessibility to improved water and sanitation facilities and type of fuel used within the Household. The result of the analysis showed that the situation of child health in Sudan necessitated great efforts to achieve the 2015 targets of the millennium development goals, with only four years left to go.

P II. Introducing the Helping Baby Breath (HBB) Program to Village Midwives in Sudan

Ahmed S[1], Ryan CA[1], Hamid A[2], Saeed E[3], Clark L[4], Denk R[5].
University College Cork, Cork, reland[1].AlneelainUniversity, Sudan[2] Khartoum University-faculty of nursing science, Sudan[3] Sunnybrook Hospital, NY , US[4] and Darfur, Sudan[5]

Background: Every year an estimated four million newborns die during their first month of life. Half of these deaths occur during delivery and the next 24 hours of life, often as a result of inadequate or lack of breathing. Simple measures to stimulate breathing, including drying and rubbing, and ventilation with bag and mask, could save the majority of these babies. Such lifesaving care is currently only available for less than one out of four newborns.Therefore, in order to meet the Millennium Development Goal 4, birth attendants in large numbers must acquire the basic skills and equipment to help newbornsbreathe.

Aim: The aim of this project is to implement the HBB into rural Sudan, concentrating on training Village Midwives (VM) who perform most if not all of the deliveries in rural Sudan. The estimated numbers of VMWs in Sudan is about 14.000, distributed over 18 Regions/provinces and covering a rural population of 25 million. We will also target the Midwifery schools in Khartoum, teaching HBB and providing basic resuscitation equipment to all VM's in training prior to their graduation.

The Program: The HBB is a basic neonatal resuscitation curriculum specifically developed for resource-limited circumstances. It is based on the premise that assessment at birth and simple newborncare are things that every baby deserves.HBB emphasizes skilled attendance at birth, assessment of every baby, temperature support, stimulation to breathe, and assisted ventilation as needed, all within "The Golden Minute" after birth.

The Resources: The Government of Health Authorities represented by the federal Ministry of Health (MOH), in addition to other Paediatric (SAP) and Neonatal (SNA) Academic bodies in Sudan have giving their approval and support to the HBB program. The CPD centre in Khartoum will coordinate the training of the different regions, including monitoring the evaluation forms as well as infant mortality data collection at village level. Training equiomentand teaching materials have been purchased with a grant from Irish Aid. We have the authorization as well as the support from the HBB committee from USA and the permission to introduce the program in Sudan as well as the copyright to translate and copy the teaching material. We look forward for further support from the Ministry of Health and other agencies towards instructor capacity building, sustainability and expansion of HBB to different regions.

Implementation of HBB: The initial plan is to hold the first regional instructor course in November 2011- at the Ministry of Health training centre (CPD) in Khartoum. Three HBB Master Trainers (one Paediatrician and 2 midwives) will train 54 Regional instructors from each of the 18 provinces. These Regional instructors will then have the responsibility to set regular courses at their regions and to teach 100- 150 VMWs over the first six months for the year 2011/2012. Within 3-4 years our objective is to train 4000-5000 VM's throughout Sudan. If extra funding becomes available, we could train all the 14,000 VM's in the country.

Evaluation: Local baseline data on infant morbidity and mortality will be collected prior to and 6-monthly following the implementation of HBB. QuestionairesonVM use of HBB in practice will also be collected.

Impact of HBB: We believe that widespread dissemination of the HBB will have a positive impact on Sudanese neonatal mortality rates (currently 41/1000 live births) and infant mortality rates (currently estimated at 81/1000 live births).

P III. The Initial Approach to the Management of an Infant with a Suspected Disorder of Sex Development

Prof. Faisal Ahmed
Consultant Paediatics Endocrinologist, Royal Hospital for Sick Children, Yorkhill, Glasgow,UK

It is paramount that any child or adolescent with a suspected DSD is assessed by an experienced clinician with adequate knowledge about the range of conditions associated with DSD. If there is any doubt, the case should be discussed with the regional team. In most cases, particularly in the case of the newborn, the paediatric endocrinologist within the regional DSD team acts as the first point of contact. The underlying pathophysiology of DSD and the strengths and weaknesses of the tests that can be performed should be discussed with the parents and affected young person and tests undertaken in a timely fashion. This clinician should be part of a multidisciplinary team experienced in management of DSD and should ensure that the affected person and parents are as fully informed as possible and have access to specialist psychological support. Finally, in the field of rare conditions, it is imperative that the clinician shares the experience with others through national and international clinical and research collaboration.

P IV. Adolescent Medicine: Experiences, Lessons and Recommendations

Dr. Atul M. Kanikar
Practicing pediatrician, Canada corner, Nasik (Maharashtra), India

Adolescent medicine as a subspecialty of pediatrics has emerged more than a decade ago in India. The world health organization (W.H.O.) has extended the age of child up to the age of 18 years and hence, the true meaning of adolescence (to grow) was inculcated by the Indian academy of pediatrics (I.A.P.) in 1998. The adolescent chapter (recently renamed as A.H.A.-"Adolescent health academy) was formed and various training sessions, seminars, workshops etc. are organized for pediatricians across the country since then. The chapter has won "The best chapter award" in I.A.P. several times and now holds over 1500 pediatricians as life members. The national conference of the chapter is held annually with a lot of enthusiasm and color. The chapter has healthy collaboration with Indian medical association (IMA), W.H.O. and Federation of obstetricians and gynecological society of India (FOGSI).The child development centre (C.D.C.) in Thiruvananthapuram (South India) conducts a Post-graduate diploma course and more than 400 pediatricians from different corners of the nation are now qualified to effectively treat adolescents visiting their clinics. A similar 1 year fellowship program in collaboration with University of Sydney (Australia) is underway. "Bhave's textbook of adolescent medicine" with over 150 pediatricians as contributors, is the only textbook on the subject in entire south-east Asia and has gained tremendous popularity amongst medical practitioners as well as medical students and postgraduates. The community program is framed on three principal fronts. These are 1) Family life education and life skills education program for adolescents from schools and colleges in a culturally acceptable way; 2) Parenting program for parents of teenagers on effective parenting skills and 3) Orientation program for teachers in schools and colleges on various adolescent issues. These activities are effectively implemented by local pediatricians who are trained by experienced adolescent care pediatricians through National training programs conducted by the A.H.A. The Adolescent Health

Academy (A.H.A.) recognizes the efforts and crucial role of pediatricians in the private sector and hence has made special recommendations and guidelines on "Adolescent office practice". This year the academy is organizing 5 zonal "Training of trainers" workshops across the country for pediatricians and the response is overwhelming. Involving non-governmental organizations (N.G.O.), print and electronic media, schools and colleges have certainly been useful for better and sustained activities. Adolescent friendly school initiative (AFSI) and Adolescent friendly health services (AFHS) are the forthcoming ventures of the adolescent health academy. Adolescent health unfortunately is given the least priority in many health agendas. Any program that aims at adolescent well-being needs to be handled with patience, knowledge, multidisciplinary approach and community involvement.

P V. Neonatal Acute Kidney Injury

Dr. Abubakr A. Imam
MD, FAAP, Head, Nephrology Section Children's Hospital King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia

Acute Kidney Injury (AKI) formerly referred to as acute renal failure (ARF), is a common clinical problem in neonatal intensive care units. The incidence of neonatal AKI has been estimated at 8-24% of the general neonatal population. It is usually associated with contributing conditions such as sepsis, hypotension, intrauterine growth retardation, placental insufficiency, nephrotoxic medications and hypoxia. Despite advances in perinatal medicine with overall improved survival of critically ill neonates, many infants do not survive and others sustain morbidity due to permanent damage to vital organs. Outcome data has shown that AKI in neonates can independently predicts mortality in very low birth weight infants. Therefore, early recognition and appropriate intervention of AKI in neonates are vital for better outcome with improvement in morbidity and mortality in neonatal intensive care units.

P VI. Developing Paediatric Nephrology Services in a low income country; The Sudan experience

Mohamed B. Abdelraheem and El-Tigani M.A. Ali
Noura Children's Centre for Kidney Diseases & Surgery, Soba University Hospital, University of Khartoum - Sudan

In developed countries, the field of paediatric nephrology is progressing continuously, primarily due to the available funding and resources and the many recent advances in the areas of physiology, genetics, diagnosis and imaging, and therapeutics. Consequently, a high standard has been achieved in the care of children with kidney disease KD. In contrast, paediatric nephrology as a medical sub-specialty has yet to be developed in Africa. Until recently there were no paediatric nephrologists or services in Sudan, and children needing specialized renal care are referred to the care of adult nephrologists, with the subsequent obvious difficulties in handling small children and accommodating children in an adult ward. Despite that dialysis in adults was first performed in Khartoum in 1967 and the first kidney transplantation was performed in 1974, it was not until 2004 Noura Childrens Centre for Kidney Diseases and Transplantation in children was established. Seven million people live within the urban area of Khartoum, Sudan, and children under 15 years of age constitute about 45% of the total population. Paediatricians face major challenges in developing tertiary nephrology units that can provide all aspects of comprehensive renal care, including renal biopsies, dialysis and transplantation, besides support by a multi-professional team. We describe the development of paediatric nephrology services at Soba University Hospital – University of Khartoum that provide renal services for children.

P VII. The Era of Pediatric Neurogenetics

Prof .Mustafa Abdalla M. Salih
MBBS (U of K), MPCH (U of K), MD (U of K), Dr Med Sci (Uppsala), FRCPCH (UK) Professor, Division of Pediatric Neurology, Department of Pediatrics, College of Medicine, King Saud University, Riyadh, Saudi Arabia

Following the successful implementation of the Expanded Program on Immunization worldwide, and with the improvement in childhood nutrition, genetic diseases emerged as a significant health problem causing significant mortality and life-long morbidity. The majority of these genetic disorders manifest in childhood with either neurobehavioural impairment or as degenerative neurological disorders.

The high incidence of consanguineous marriages in Sudan, North Africa and Arabia is reflected on the high prevalence of autosomal recessive (AR) disorders, in contrast to the situation in North America and Europe. The magnitude of muscular dystrophies (MDs) and myopathies, mostly due to AR conditions, is apparently large. The prevalence rate of anterior horn cell diseases, including Werdnig-Hoffman disease, was 133 and 177 per million in two studies, compared to 12 per million from the World Survey. A severe childhood autosomal recessive muscular dystrophy (SCARMD) resembling Duchenne MD was first noted in families from Sudan and Tunisia. Subsequently, the disease was identified in other Maghreb countries and in the Arabian Peninsula. The frequency of this form of MDwas found to be equivalent to, and higher than, Duchenne MD in Tunisia and Saudi Arabia, respectively. The corresponding genes were identified including alpha-sarcoglycan (or *Adhalin* gene, from the Arabic word *Adhal*for muscle). The same founder mutation of one form of congenital muscular dystrophy (MDC1A) was detected in families from Sudan and Saudi Arabia.

Utilizing the power of family-based genetic studies combined with emerging DNA technology, new syndromes and diseases were identified. Those with gene / locus identification included:

1. Salih myopathy: Autosomal recessive titinopathy causing early onset myopathy/dystrophy with dilated cardiomyopathy (http://jcs.biologists.org/cgi/content/abstract/121/11/1841).
2. Charcot-Marie-Tooth Disease Type 4B1 (OMIM 601382).
3. A new form of childhood-onset, autosomal recessive spinocerebellar ataxia and epilepsy (http://brain.oxfordjournals.org/cgi/content/full/130/7/1921).
4. Spinocerebellar ataxia with axonal neuropathy (SCAN1; OMIM 607250; http://www.ncbi.nlm.nih.gov/books/NBK1105/)
5. Horizontal gaze palsy and progressive scoliosis (OMIM 607313)
6. Bosley-Salih-Alorainy syndrome (OMIM 601536)
7. Salih ataxia: (http://brain.oxfordjournals.org/content/133/8/2439.full.pdf+html)

These advances of pediatric neurogenetics helped in refashioning the prognosis and differential diagnosis of these diseases. It also made possible the choice of life saving drugs in congenital myasthenic syndromes, and made possible presymptomatic, prenatal, and reimplantation genetic diagnoses for Sudanese and Saudi families. On
The other hand, exon skipping made a breakthrough in the gene therapy of Duchenne MD.

P VIII. Epilepsy and Behaviour

Dr. Rob Forsyth
Senior Lecturer in Child Neurology, Newcastle University UK

As both normal brain function and epileptic seizure activity in the brain are the result of patterns of neuronal discharges, it is unsurprising that seizure activity can modify normal behaviour. The loss of normal behaviourduring a seizure is of course well recognised. Whether a seizure predisposition (i.e. epilepsy) can have persistent interictal effects on behaviour and cognition is a more complex question. It is however a potentially very important question in that effects on cognition or behaviour that are directly or indirectly the result of seizure activity are, at least in principle, preventable through the optimisation of seizure control.The ILAE (International League against Epilepsy) classification uses the term "epileptic encephalopathy" to describe a situation where brain function is being persistently affected by seizure activity. We will review some examples of epileptic encephalopathies, and the very practical clinical challenges they raise about the optimisation of the balance between under-treatment of the epilepsy (with cognitive and behavioural effects of incomplete seizure control) and over-treatment where the child is experiencing unwanted drug side effects.

P IX. Teaching and Training of Professionalism and Good Medical Practice in Sudan MD program: can we do better

Prof. Zein A. Karrar
FRCP, FRCPCH.
President – Sudan Medical Counci

Professionalism is considered to be the zenith of professional training in Medicine encompassing the basic principles that underpins the professional practice of any medical graduate. It encompasses certain professional traits that are essential for clinical practice including: ethics and ethical practice, communication skills, teamwork and interaction, accountability and continuing professional development, it is the basis of the medical profession contract with society). It was central to all major review documents and position papers that influenced change in medical education in the nineties

In Sudan the graduate profile in almost every Health Training Institution state & emphasize those attributes as desired outcomes. However a review of the curriculum almost always shows little evidence of teaching & training in this area. The few courses – when they exist – are usually theoretical lectures or seminars conveying some concepts with no training to acquire the desired skills. Objective assessment for the area is almost non existant.The Sudan Medical Specializations Board (SMSB) had recently reviewed the training programs curricula including the Paediatrics and Child Health MD Program. The document includes excellent set of objectives addressing professionalism and good medical practice and clearly states the desired attributes of the graduate.This presentation critically examines the teaching and training during the MD residency years and identifies evident disparity between stated objectives and teaching and training in that area.The paper identifies opportunities and constraints and argues that there is a need to debate the issue and improve training.

It suggests some steps for better teaching and training within the MD program.

P X. Childhood Tuberculosis (Diagnosis & Treatment Challenges)

Prof. Mabyou Mustafa
Prof of paediatrics, Faculty of Medicine,
International University of Africa;

One third of the world's population is estimated to be infected with Mycobacterium Tuberculosis. Each year, about 9 million people develop TB, of whom about 2 million die. Of the 9 million annual TB cases, about 1 million (11%) occur in children (under 15 years of age). Of these childhood cases, 75% occur annually in 22 high-burden countries that together account for 80% of the world's estimated incident cases and 250,000 deaths. The HIV/TB co-infection rates for pediatric 11-64%. In Africa, an estimated 10% of new active TB cases occur in children. This estimate is likely to be low because many sick children are not brought to health facilities, and there is limited making used of diagnostic and treatment capacity in TB treatment centers in addition to low rate of child TB services expansion. The global magnitude as well as trends of incidence, morbidity, and mortality of tuberculosis in children has remained unclear due to a lack of a definitive diagnostic tool in most of the cases. Another important reason is that children do not make a significant contribution to the spread of tuberculosis. In Sudan Tuberculosis represents 0.2% of hospital admissions in children under 5 years. In 2010 the NTP had 330 TB treatment units all over Sudan 9 of these are pediatric hospitals (Gaafar Ibn Auf, Omdurman, Bolok, Ahmed Gasim, Khartoum Military, Medani. Hasahissa, Sinnar, and Gadarif). Children under 5 years represent 5.%, from 5-14 represnt about 8.4% of all cases. During the period (2003-2010), 4807new cases were identified with a male to female ratio 1.07. A child usually gets TB infection from being exposed to a sputum-positive adult. The diagnosis of tuberculosis in children can be difficult as children > 10 years usually cannot cough up enough sputum to be sent for laboratory investigations. The diagnosis is thus largely based on the clinical features of cough, weight loss, with a history of close contact with an infectious adult TB patient, Tuberculin test and the scoring system, mainly, as screening tool. Chest X-rays of children are difficult to interpret as the typical shadow is rarely seen. Treatment outcome in children generally good provided that treatment starts promptly. The stop TB strategy, which builds on the DOTS strategy developed by the World Health Organization (WHO) and the International Union Against TB and Lung Diseases, has a critical role in reducing the worldwide burden of disease and thus in protecting children from infection and disease. Pedestrians play a central role in the management of children with TB following the stop TB strategy and National Child TB Management guideline with the recommended WHO first line fixed dose combination (FDC), taking into consideration epidemiology and clinical presentation of TB in children.

P XI. The Sudanese Association of Paediatricians SAP convoy to Northern State

Dr .Walyeldin Elnour M. Elfakey
MD, DTM, RCP& S, Assistant Professor University of Bahary

The Sudanese Association of Paediatricians (SAP) is one of the more active working in Sudan. One of the major goals of SAP is to help in distribution of services equally to all states as the capital, hence come one of the cardinal recommendations of the 16th SAP congress which was in November 2009. In that meeting general assembly of the Sudanese Paediatricians asked the elected executive committee to create activities in states and in remote rural areas.

As a result of these SAP organized a medical convoy to Northern State (Dongla and near towns and villages).

Objectives: To deliver qualified health services to remote areas

One of the major objectives of SAP is to extend its activities to states other than Khartoum to help the northern state in aspects of health education, advocacy & to provide simple instruments for outstations

Training of medical professionals

Sharing vision with policy makers in health planning.

In this convoy: 36 pediatricians shared in addition to 32 pediatrics registrars, 8 pharmacists, 6 qualified nurses, 3 medical instruments experts and 3persons for secretariat and documentation services.

Activities: Specialized clinics in Dongla:

Specialized clinics were held at Dongla specialized hospital and the Diabetic clinic (Old Hospital).There were 5 clinics (Endocrinology, Gastroentrology, Nephrology, Neurology and special needs), some consultations in Neonatology. A Special ENT clinic was held for (Children and Adults).T he clinics were covered by 8 consultants, 5 Registrars and organized by helpful doctors and nurses.

The total number of patients seen in specialized clinics in 2 days was 181 patients.

The convoy organized clinics in 11 villages around Dongla where a lot of patients seen and SAP distributed essential instruments to all villages' health centres and small hospital. The total numbers of patients seen in these villages in 2 days were 1423 patient. During this convoy SAP organized a workshop for neonatal health services and two courses for doctors and midwives.Health education visits organized in collaboration with Federal Ministry of Health, Health promotion directorate and reaches all parts of the state. SAP convoy to Northern state in February 2011 was a turning point in this professional organization vision. Many objectives achieved and many lesson for future activities are gained.

OP01. Adolescent Medicine: The Present Situationand the Future

Dr. Satti Abdulrahim Satti
MD, CABP. Associate Professor. Elneelain University.

Adolescence is a dynamic time! A time of rapid physical emotional and intellectual growth and develop-ment. Adolescent Medicine is defined as: A medical subspeciality that focuses on care of patients who are in the adolescent period of development. Patients have generally entered puberty, which typically begins between the ages of 9-11 years for girls and 11-14 years for boys.

With the arrival of puberty physical and emotional development accelerates. 85% of adolescents live in developing countries. Adolescent medicine is a medical field that concentrates on the unique health care needs of adolescents. It is an important speciality of: Family practice, internal medicine, pediatrics and youth health.

Seeing an adolescent medicine specialist is a great way to transition from childhood to adulthood. Adolescents usually make fewer visits to physicians. They also represent the largest proportion of children who are disabled.

The complexity and interaction of physical, cognitive and psychosocial developmental processes during adolescence require sensitivity and skill on the part of the health professional.

Followings are the main risks for adolescents: Chronic conditions like asthma and diabetes, poor nutrition and obesity, mental disorders, suicide, drug abuse, smoking, violence, HIV infection, teenage pregnancy and street children. So it seems that the leading causes of death and disability among adolescents are preventable.

What is the role of parents in support of the adolescents health and development. What barriers impede the optimal provision of adolescent health services? There is an urgent need to create safer and more supportive environments within which young people can develop. We need a holistic approach to our patients.

What is our country profile of adolescents now and what about the future? We already established the Sudan Adolescent Medicine Society (SAMS), which is part of the IPA Adolescent Health Program at the national level. It is known that intervention in one generation will bring benefits to successive generations.

OP02. Transitioning from pediatric to adult health care

Dr.Safaa A/Hameed Medani
Assistant professor. Pediatrics Department,Faculty of Medicine and Health Sciences,Neelain University.

Given that the survival rates have increased for children with chronic illness, the transition from pediatric to adult health care becomes an important clinical issue. The challenges that faced by the adolescents and young adult transitioning from pediatrics to adult health care services are several and often daunting. They include characteristic of the patients and their family, pediatric and adult teams and the institutional and health care systems policies. Purposeful planned process that addresses the medical, psychological and educational needs of the patients are required. Programs should be designed to help the gradual transition. What should we look for in a transition to adult healthcare program and what skills are important to making a smooth transition. When should a child start the transition process? Development that ensures the transition from pediatric to adult care as normal, expected, and designed plan should exist.

Recommendations are provided for each areas involved, beginning with an emphasis on healthcare systems policy revisions that are necessary to build meaningful change. Pediatric and adult health care teams as well as patients and families. Suggestions are presented for needed research. Finally the need is critical and much can be done on the personal level, communicate and have heartfelt conversations with your patients and other healthcare providers.Untill the necessary systemic and institutional improvement are in place, we must each assume responsibility for facilitating the best possible interim solution

OP03. Prevalence of smoking in school Adolescents in Khartoum state

Dr. Yousif Mokhtar
Assistants professor & Consultant Pediatrician
Pediatrics department, the National Ribat University.

Introduction: About 20% of young teen (13-15) years smoke world wide, from which 80,000- 100,000 children begin smoking every day. Half of those who begin smoking in adolescence are projected to go on to smoke for 15-20 year. Factor that commonly play a role in initiation of smoking among adolescents include social factors, smoking among family members, peers, teacher, psychological relaxation, pleasure and economics factors. This work aim to study the prevalence of smoking in adolescents in Khartoum state among students between the age of 12 and 18 years old in primary and secondary school and to report the factors associated with smoking habit.

Patients and methods: This is a prospective study carried out in thousand adolescents in different schools in Khartoum state, in the period from 29th June 2011 up to 29th of September 2011.

All the relevant information was recorded on a questionnaire. Approval to conduct this study is obtained from the directors of selected schools.

Results and conclusion: will be available on presentation.

OP04. Drug abuse in Sudanese Adolescents

Dr. Amani Abdulhameed Ahmed Nur

(Abstract not submitted)

OP05. Prevalence and risk factors of depressive symptoms among sudanese diabetic adolescents

Dalal Khalil Ahmed Fageer[1], Mohamed Osman Mutwakil[2], Mohamed Ahmed Abdullah[2]
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Introduction: The diagnosis of a chronic illness such as diabetes is a significant risk factor for a number of related complications including the psychological ones. Depression is one of the most common psychological complications of diabetes mellitus. Many factors affect diabetes control during adolescence making this period as the most difficult period for diabetes control. Thus, depression among diabetic adolescents may lead to impaired metabolic control causing more diabetic acute and chronic complications. The aim of the study was to estimate the prevalence of depressive symptoms among diabetic adolescents and to determine the risk factors and associations of depressive symptoms among diabetic adolescents.

Patients and Methods: A cross sectional, hospital based, case control study was carried out during the period from April to June 2010 at Gaber Abualiz center where there is the main clinic for childhood diabetes in Khartoum state. The depressive symptoms were assessed using the center of the epidemiological study depression scale which is one of the commonest scales used to assess depression among diabetic patients. Essential information about the patients was collected using a structured questionnaire.

Results: The study consisted of 128 adolescents with mean age of 15.8 years, with a range of 11-20 years. Females constituted 58.6% of the study group. 97.7% of the patients were found to have type 1 diabetes mellitus, with a mean duration of the disease 5.2 years (range 1-16 years). Half of the patients (55.5%) were found to have HbA1c more than 10%. Regarding depressive symptoms, there was significant difference between the mean score of depressive symptoms in the depression scale of diabetic and non diabetic adolescents. 31.3% of diabetic adolescents were found to have moderate/ severe depressive symptoms, 39.1% with no or minimal, 29.6%with mild ones. Increased depressive symptoms were found to be associated with female gender, being obese or overweight, being from families of lower income and with higher HbA1c.

In conclusion: diabetes mellitus was found to be associated with increased depressive symptoms among Sudanese diabetic adolescents.

OP06. Adolescent Health Situation Analysis

Dr. Esmehan Elkheir

Executive Summary: In Sudan, adolescents constitute 23.5 % of the total population so the Ministry of Health (MOH) and world health organization have identified the need to conduct a situation analysis on adolescent health in Sudan to support policy development.

This report presents the findings of the situation analysis on adolescent health in Sudan, which was conducted since Dec 2008. It highlights the background, process of situation analysis, and main findings. The methods used included a desk review of relevant documents, structured In-depth interviews with MOH related programmes ,other related sectors, and relevant partners; UN Agencies & related NGOs .for further data collection across-sectional school based study was conducted in 5 states; Khartoum, Whit Nile, Gadarif, N.Kurdfan ,and Northern state, that selected randomly to represent Sudan,using both qualitative and quantitative, include Focus groups dissection and mini –survey with Adolescents , In-depth interviews with head masters in selected school and Universities , also with health providers in selected area

The Analysis showed that there is a huge information gap and lack of coordination between the different sectors.The main health problems facing the adolescents include: general health problems); Sexually Transmitted Infections (STIs), including HIV&AIDS and other STDs; early and unprotected sex; early marriages and unwanted pregnancies; sexual, substances abuse; violence; unsafe cultural practices; and mental health problems; nutritional problems, life style: smoking, lack of exercise and addiction, and injuries.

Main Findings: The following were the main findings:

- No specific health services available in the country target adolescents
- No age specific data available.
- All related Ministries had been consulted and non of them targeted adolescents specifically in their policies, strategies and services
- Sudan's national health policy doesn't mention adolescents' health specifically only the reproductive health program address the Adolescents Health at their own policy
- Most of selected organizations has polices & strategies that target adolescents
- The gross enrolment is 73.0% in byes ,64.6% in girls and 29.7 %in secondary education
- Literacy rate is 57%, 25% less than 9 years & 18% more than 45 years
- **37.6%** of married women are under **18** years of age
- 50% of women who are early married ignore what contraception is
- FGM is round **65.5%** practiced among all ethnic and religious groups in northern Sudan
- HIV prevalence is estimated 0.67%in north and 66.2% of interviewed Adolescents worry about getting HIV infection
- 6.9% of university students reported having sex, of these, 5.5% engaged in pre-marital sex.
- 10% of the respondents admitted smoking although 69.7% of them knew the complications of smoking. 55% started smoking at the age of 13 – 15
- Substance Abuse most of them initiate drug use when they are between15-18. 2.3% drug abusers &4.5% of respondents were alcohol consumers
- RTA is the 10th leading cause of death in Sudan, 10% of RTA deaths are 11– 20 years of age
- Violence among adolescents using sharp tools, stones and sticks is common. 40% of homicides and intentional injuries in 2008 were less than 24 years
- More than 12.000 children are homeless
- 55% of the adolescents describe themselves as happy, and 16% of them thought seriously about suicide.

OP07. Management of Cardiac Failure in the PICU

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(Abstract not submitted)

OP08. Gauidelines of Management of Septic Shock in Children, Do They Improve The Outcome?

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Sepsis is a clinical syndrome that complicates severe infection and is characterized by systemic inflammation and widespread tissue injury. The incidence of severe sepsis is highest in infants. Severe sepsis and septic shock is still causing significant mortality and morbidity in paediatric population. International guidelines of management have been established in both interventions and close monitoring to achieve certain early goals in order to reduce the subsequent complications and mortality. in children. The guidelines include, but not restricted to: restoration and monitoring of tissue perfusion, support of airway and breathing, initiation of intravenous antimicrobial therapy, controlling source of the infection, in addition to administration of corticosteroids, activated protein C, control of glucose level whenever are indicated. How far do those intervention improve the outcome in severely infected children? That will be discussed in the presentation.

OP09. Transport of the critically ill or Injured Child

Dr. Tarig Mohammed Osman
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The objective of this talk is to describe factors that influence the method of transport , to identify potentially high risk problems, and to discuss practical issues(to specify the required information to facilitate effective and timely transport and the required equipment for safe transport. Critically ill or injured patients are transported to obtain additional care. The risk of M&M increases during transport. Successful transport requires careful selection of patients, careful planning, appropriately qualified personnel; appropriate equipment and appropriate training.The presentation will discuss the necessary steps to develop a critical care transport team. It is a multidisciplinary team to plan and coordinate the transport process. Standard transport plans & guidelines are vital to successful transport. Each paediatric tertiary care unit should have an organised transport system. Transport is either Intrafacility Transport or interfaculty transport. The four key elements of Transport are 1-Communication. 2 Personnel 3 Equipment, and 4 – mode of transport.

OP10. Letter Of Intent

Dr. Bahaeldin Hassan

Purpurafulminans (also known as "Purpuragangrenosa) is a haemorrhagic condition usually associated with sepsis or previous infection. It occurs mainly in babies and small children. It is a life-threatening disorder of acute onset. It is characterized by cutaneous haemorrhage and necrosis (tissue death), low blood pressure, fever and disseminated intravascular coagulation. Features include tissue necrosis, small vessel thrombosis and disseminated intravascular coagulation. Gram□negative organisms are the commonest cause of the acute infectious type, which is often associated with multi□organ failure. The mortality rate has decreased with better treatment of secondary infections, supportive care and with trial of new treatments (such as activated protein c, anti thrombin), but it remains a disabling condition often requiring major amputations.There are no data to support the efficacy of the new modalities of therapy. **Our study** is observational descriptive study including patients admitted with purpurafulminans to Hamad Hospital from 2006-2011, looking at different treatment modalities, and how effective it was, in inimizing morbidity in the form of amputation, and assess its effect on mortality. This description may add to literature more cases for

further future studies in this fatal problems.Supportive treatment and replacement of deficient blood components, fresh frozen Plasma and clotting factors is the mainstay of therapy. Protein C and antithrombin III should be given if deficient. Heparin should be considered early on because of the risk of thrombosis with factor replacement. Dextran may have a role in complementing these treatments. Other treatment modalities should be used depending on the progress of the disease, but there is no strong evidence in favour of one particular therapy. Prostacyclin may cause hypotension and nitroglycerin can have unpredictable effects.Plasmapheresis may be helpful when fluid overload is a problem. There is no evidence to date regarding the benefit of ketanserin but it is a treatment option.Combination therapy is usually used. We advise rigorous resuscitation with fluids, ventilation and inotropes, and early consideration of lower limb fasciotomies. So we have to search thoroughly and look forward for evidence to choose the proper modules of treatment which could minimize the most devastating complication of purpurafulminans. We planned for observational study including children (males and females)between 0-14 years old who were diagnosed as purpurafulminans at paediatrics floor and PICU at Hamad hospital from 2006-2011. The study concentrated on the modalities of intervention done(early detection and diagnosis, fluid resustation,use of colloid and blood products, intropes, heparin,antithrombin, activated protein c, and fasciotomies) outcome measures were towards factors that lead to minimizing morbidity and mortality.

OP11. Experience of Hamad Medical Corporation (Hmc) Doha Qatar. In The Overseas Transfer of Sick Children Using Commercial, Non-Medically Dictated Fixed-Wing Aircrafts

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The air transportation of sick patients can be carried via helicopters or fixed winged aircrafts. However, the latter has the advantage of transferring very sick patients over longer distances. Also it is quitter, faster, and more spacious. The objective of this research is to study the experience and the outcome of Hamad Medical Corporation (HMC) Doha Qatar in the overseas transfer of sick children, using commercial, non-medically dictated fixed-wing aircrafts.

Methods: all patients' data collected from the overseas medical office at national health authority, Qatar. The study was approved by the ethical committee of HMC research center. During the period Jan 1999 and March 2008 among all patients who transported by the above mentioned mean 459 were of pediatric age group (below 14 years of age according to our definition). We reviewed 247 air trips. Demographic data, indications of transportation, logistic support, equipments, team composition, and adverse events occurred during transportation were evaluated.

Results: average duration of transportation per trip was12 hours, the average flight duration was 8 hours. 21 children were critically ill (defined as those who were on mechanical ventilation or intravenous inotropic support during transportation). All patients arrived to the overseas distention without adverse event, one child developed bradycardia and resuscitated on arrival to distenation and expired after one hour.

Conclusion: the experience of Hamad Medical Corporation (HMC) Qatar showed overseas transfer of sick children using commercial, non-medically dictated fixed-wing aircrafts, to be safe if undertaken with full preparation, good communication, and logistic support.

OP12. Systemic Inflammatory Response Syndrome

Dr. Bahaeldin Hassan

Systemic inflammatory response syndrome (SIRS) is an inflammatory state affecting the whole body, frequently in response of the immune system to infection, but not necessarily so. It is related to sepsis, a condition in which individuals both meet criteria for SIRS and have a known or highly suspected infection. The latest finding shows that SIRS in trauma patients may be caused by immune reaction to mitochondria massively released into bloodstream from dying cells at the site of injury Delocalized and dysregulated inflammation process of high intensity leads to disorders of microcirculation, organ perfusion and finally to secondary organ dysfunction. This secondary dysfunction is not due to primary insult but due to auto aggressive systemic inflammatory response of the organism to the primary insult. This systemic inflammatory response syndrome (SIRS), leads without therapeutic intervention to multiple organ dysfunction syndrome (MODS) and death. SIRS is a serious condition related to systemic inflammation, organ dysfunction, and organ failure. It is a subset of cytokine storm, in which there is abnormal regulation of various cytokines. SIRS is also closely related to sepsis, in which patients satisfy criteria for SIRS and have a suspected or proven infection. Criteria for SIRS were established in 1992 as part of the American College of Chest Physicians/Society of Critical Care Medicine Consensus Conference. The International Pediatric Sepsis Consensus has proposed some changes to adapt these criteria to the paediatric population In children, the SIRS criteria are modified in the following fashion: 1. Heart rate > 2 standard deviations above normal for age in the absence of stimuli such as pain and drug administration, OR unexplained persistent elevation for greater than 30 minutes to 4 hours. In infants, also includes Heart rate < 10th percentile for age in the absence of vagal stimuli, beta-blockers, or congenital heart disease OR unexplained persistent depression for greater than 30 minutes. 2. Body temperature obtained orally, rectally, from Foley catheter probe, or from central venous catheter probe < 36 °C or > 38.5 °C. Temperature must be abnormal to qualify as SIRS in paediatric patients.3. Respiratory rate > 2 standard deviations above normal for age OR the requirement for mechanical ventilation not related to neuromuscular disease or the administration of anesthesia. 4.White blood cell count elevated or depressed for age not related to chemotherapy, or greater than 10% bands + other immature forms. SIRS is frequently complicated by failure of one or more organs or organ systems. Generally, the treatment for SIRS is directed towards the underlying problem or inciting cause (adequate fluid replacement for hypovolemia, IVF/NPO for pancreatitis, epinephrine/steroids/benadryl for naphylaxis). Selenium, glutamine, and eicosapentaenoic acid have shown effectiveness in improving symptoms in clinical trials. Other antioxidants such as vitamin E may be helpful as well.

OP13. Some Good News for Sicklers

Dr. Malik Ahmed Babiker
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Fairly recent ways to ameliorate sickle cell disease will be discussed.

- Premarital screening
- Newborn screening
- Vaccination and penicillin
- Anti-sickling agents
- Prevention of stroke
- Erythropheresis
- Oral chelation
- Stem cell transplantation – cord blood
- Pre-implantation DNA diagnosis

OP14. The safety and efficacy of total dose iron infusion (TDI) in Sudanese children

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Abstract: 27 patients age 18 m to 11 years (15 males 12 females) were admitted to receive total dose iron infusion. All were referred as iron deficiency anemia not responding to oral iron. All tolerated the infusion well except a 3years old, known, asthmatic who developed cough and wheeze during the infusion (he tolerated the test dose) the infusion was stopped and resumed at slower rate after clearance of those symptoms, this was then well tolerated. No delayed side effects.

21 patients completed follow up, all responded to *TDI infusion as shown by a significant* hemoglobin increment.
Conclusion:TDI is safe and effective in Sudanese children with iron deficiency anemia not responding to adequate doses of oral iron.

OP15. Management of severe thrombocytopenia in-dengue haemorrhagic fever 2010 in Port Sudan

Dr. Amel Aziz Malik
Red Sea University Port Sudan

Dengue is the most important arthropod-borne viral disease in terms of human morbidity and mortality. Since 2005 Port Sudan experienced several out breaks of Dengue haemorrhagic fever.

This is a study of 789 under15 children. Hospitalized for supportive care and management, in different paediatric hospitals in Port Sudan with dengue haemorrhagic fever in 2010, looking at clinical symptoms ,signs , investigations and management comparing different factors such as age, sex, chronic underlying conditions , the challenges of management of infants, risk factor for severe symptoms, death, daily haematological investigations and management outcome according to2009 protocol. Platelet counts were performed on admission and throughout their hospitalization.

Patients were monitored closely for signs of organ impairment, shock. Symptomatic thrombocytopenia, hemorrhagic manifestations and although all cases have very low platelets (platelet count of less than 50,000 per cubic mm) serious bleeding was rare and Very few needed platelets transfusion.

OP16. Intrahepatic Cholestasis in Patients with Sickle Cell Anemia

Dr. Fathelrahman Elawad Ahmed
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Three cases with sickle cell anemia and intrahepatic cholestasis will be presented. They were all males. age 5,10 and 12 years. All presented with deep jaundice, pallor and mucous membrane bleedings. All had tender hepatomegaly. One patient had ascites and another one had severe hypertension which resolved after recovery. Total bilirubin ranged between 325 and 1908 □mol/l. Liver enzymes were mildly to moderately elevated.

One patient had a prolonged prothrombin time while two patients had prolongation of prothrombin time and activated partial thromboplastin time. The patient with ascites had acute renal failure. All had leucocytosis and low hemoglobin while thrombocytopenia was present in one patient. All were treated with blood transfusion, fresh frozen plasma, antibiotics, intravenous fluids and liver support. Two patients recovered and one died

Conclusion: Intrahepatic cholestasis in patients with sickle cell anemia is a serious disease and might be fatal if not properly treated.

OP17. A Study of Physical Growth and School Performance in Sudanese Children with Sickle Cell Anemia

Dr. Ilham Mohammed Omer
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Supervisor: Dr. El Tahir Medany Elshibly

A total of 94 Sudanese children with homozygous sickle cell anaemia (SCA) and 60 children with normal adult haemoglobin (AA) as a control group were studied during August l992 to August 1993 at Khartoum Children Emergency Hospital. They were studied by means of questionnaire, physical examination and investigations. The effect of SCA on the physical growth and school performance of these children was studied and compared with the control group. Children with SCA were found to have significantly lower, anthropometric values, ($P < 0.05$), than the control group, regarding the weight, height and head circumference within all age groups. Children with SCA were found to have lower school performance, as compared to the control group. 78% lost a year or more at school. Less than 25% of them were at their proper school classes. 75% of them had poor school performance. These findings were related to the repeated episodes of illnesses, frequent hospital admissions, and the frequency of blood transfusions, the latter two were taken as indices of severity. So the studied group of children with SCA had poor physical growth and poor performance at school.

OP18. Rare forms of Diabetes Mellitus

Dr. Khalid Hussain
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Rare forms of diabetes mellitus (DM) may occur in the neonatal period or in adulthood. Transient neonatal DM develops in the first few weeks of life and then goes into remission in a few months, with possible relapse to a permanent diabetes state usually around adolescence or as adults. Transient neonatal DM can either be caused by defects in imprinted genes on chromosome 6 (*ZAC* and *HYMA1*) or due to defects in pancreatic K_{ATP} channels (see below). The persistent form of neonatal DM may be due to abnormalities in pancreatic development (agenesis and hypoplasia) or related to rare underlying syndromes (such as Wolcott-Rallison, Roger's or IPEX). Persistent and transient forms of neonatal DM can also be due to activating mutations in the genes *ABCC8* and *KCNJ11* encoding the SUR1 and KIR6.2 proteins of the pancreatic beta-cell K_{ATP} channel respectively. The pancreatic K_{ATP} channel plays a pivotal role in regulating glucose induced insulin secretion. Activating mutations in the genes *ABCC8* and *KCNJ11* impair the ability of glucose metabolites to induce insulin secretion. However intriguingly from the management point of view some of these patients respond to oral hypoglycaemic agents (sulphonylureas) and their subcutaneous insulin therapy can be discontinued. A subgroup of these patients has development delay and epilepsy which also improves with the oral sulphonylureas. Hence all patients with diabetes mellitus diagnosed before six months of age should have mutational analysis for the *ABCC8* and *KCNJ11* genes. If they are positive oral sulphonylureas should be tried in their management. Even more recently mutations in the insulin gene have been identified as a cause of permanent neonatal diabetes mellitus. In adults maturity onset diabetes of the young (MODY) is a form type 2 diabetes mellitus characterized by early onset DM inherited in an autosomal dominant pattern and impaired glucose-stimulated insulin secretion. MODY can result from mutations in at least 6 different genes. One of these encodes the glycolytic enzyme glucokinase (MODY2), which is an important glucose sensor, while all the others encode transcription factors: hepatocyte nuclear factor-4α (HNF-4α) (MODY1); HNF-1α (MODY3); insulin promoter factor 1 (IPF1/pancreatic duodenal homeobox 1 [Pdx-1]) (MODY4); HNF-1β (MODY5); and neurogenic differentiation factor 1 (NeuroD1) (MODY6). Classically patients with MODY present before the age of 25 years and is usually non ketotic. Making a diagnosis of MODY is important as it can have a dramatic effect on patient management. For example patients with glucokinase (MODY 2) need no treatment and those with HNF1alpha (MODY 3) are very sensitive to low dose sulphonylureas. Hence it is important to identify patients with MODY as this will have important implications for treatment and genetic counselling.

OP19. Sudan Childhood Diabetes Program:

Ilham M. Omer, Amani I. Gindeel, Bakhita Attallah, Yassir Mahgoub, Nawal Sanosi, M. A. Abdullah

Background:

The incidence of childhood diabetes is increasing throughout the world including Sudan. However in Sudan, like many developing countries, the treatment facilities are limited, not easily accessible and unaffordable, this in addition to lack of trained personnel. The Sudan Childhood Diabetes Association is an NGO that was established in 2003 to help in this issue. In addition to various activities including the socioeconomic help of children and their families and making treatment available, the SCDA is now building a center of excellence for service, training and research in Khartoum named The Sudan National Childhood Diabetes Center. It also started a 2-year project from May 2009 in collaboration with

Federal Ministry of Health, Sudan National Diabetes Program and States Ministries of Health and mainly funded by the World Diabetes Foundation to improve care of children with diabetes in Sudan.

The main objectives of this program are:

1. To improve the current main clinic in Khartoum and create a cen ter of excellence including the laboratory and adolescent care
2. To establish childhood diabetes clinics in all states of Sudan with trained multidisciplinary teams and equipment as well as communication facilities
3. To produce management guidelines and protocols
4. To improve on health education, professionals & public awareness
5. To improve on community aspect of care including care of children with diabetes in the schools
6. To sustain these activities

The following objectives have been achieved so far

1. Through intensive courses 85 paediatricians, 89 dieticians and 89educators were trained. This in addition to 96 teachers and 35 medical students as peer educators
2. Twenty five clinics staffed with multidisciplinary teams and equipments were created in 15 states including 8 in Khartoum state and five more are on the way
3. Khartoum main clinic was upgraded, facilities improved and now we care for over 1200 children and have separate clinics for adolescents
4. A high quality laboratory to do all investigations was purchased and installed and this will be accessible to clinics in Khartoum and other states. This in addition to point of care tests for HbA1c and micro albumin
5. Many health education books posters and others were produced
6. Management guidelines and protocols were produced
7. More than 48 schools were visited and teachers trained and mini clinics established
8. Public and professionals awareness was increased
9. A website was created.
10. Branches for SCDA were created in many states
11. Sustainability of the programs was discussed with the Sudan National Diabetes Program and the Ministry of Health

This work was acknowledged internationally as a model for Afri

OP20. Services provided by the integrated program for diabetic children at Wadmedani Pediatrics hospital

Prof. Huda Haroon

Introduction: The incidence of diabetes, both type one and two is increasing worldwide. Scandanavian countries have the highest incidence of type one followed by European United state, less in Japan and China, Africa and Arab countries. In Sudan it is estimated tobe0.1% among school Children.

Rational Before 2007 there is no specialized services offered to diabetic children in Gazira state, children are treated in the emergency department and ambulatory care with different guidelines resulting in high morbidity and mortality among diabetic children.

Objective: The objective of the program is to manage diabetic children at hospital, home, and school.

Specific objectives: Availing guidelines, drugs, and other logistics needed for the treatment of diabetic children during emergency and ambulatory care

Availing health education matrial for families, and teachers

Collection of patient in a clinic to estimate the magnitude and burden of the problem

Process: Premesis, equipments, furniture, manpower, guidelines

Outcome, primary and secondary

OP21. Neonatal Diabetes in Sudan

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Neonatal diabetes mellitus (NDM) is defined as uncontrolled hyperglycemia that presents within the first six months of life. It is a relatively rare disorder with a reported incidence of one case per 300000 to 500000 live births. It is classified into transient (TNDM) or permanent (PNDM) with equal frequency. Sometimes, the transient form can disappear in infancy and reappear later. Recently, many genetic forms of NDM have been identified including kCNJ11, ABCC8, GCK, IPF1, PTF1A, FOXP3, E1F2AK3 and ZAC|HYMA1. In addition to insulin, some variants respond to sulphonylurea. In this communication and for the first time, we report 6 cases from Sudan and show their clinical presentation and treatment. Many siblings died as they were misdiagnosed. Molecular genetic findings were positive in two of them showing Roger's syndrome (SLC 19 A2gene mutation) and Fanconi Bickel (SLC2A2 gene mutation) syndrome. We believe that the incidence of this disorder is more common than what is reported and paediatricians have to be alerted.

OP22. Prevalence of Type 2 Diabetes Mellitus among Sudanese children and adolescents

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Background: Type 2 diabetes in children and adolescents is emerging as an important health problem worldwide with some ethnic and regional variations. There are no published data from Sudan.

Objectives: To identify the prevalence, risk factors, clinical presentation, management and associated with morbidities among Sudanese diabetic children and adolescents.

Patients and Methods: This was a retrospective, descriptive hospital based study. Records of all 0-18 year-old diabetic patients at Jabir Abu Izz diabetic center in Khartoum from Jan 2006 to Dec 2009 were reviewed, for the above mentioned data.

Results: A total of 985 cases were registered in the clinic 38 (4%) were labeled as type 2 DM; 35 (92.1%) had onset at puberty between 11-18 years; the female to male ratio was 1.2 : 1; thirty two (84.2%) were from tribes of Arab origin with no cases from African tribes of southern Sudan. 86% were from urban areas; only 4 (10.5%) were stunted; commonest risk factors for obesity included; family history, sedentary life, consumption of fast foods…; low birth weight and macrosomia. 70% were symptomatic at presentation. The mean HbAIC was 9.1%. Though 7 (18.4%) had microalbuminuria there were no cases of retinopathy.

Conclusion: Type 2 diabetes mellitus is emerging as a problem among diabetic children and adolescents in Sudan. The main risk factor is obesity active steps to detect cases in the community; improve awareness and prevention are recommended. Genetic and social studies to see the ethnic variation are needed.

OP23. Prevalence of Obesity and overweight among Adolescent males in Khartoum

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Background: The number of overweight and obese children is on the rise in both developed and under-developed countries. Sudan is one of the under-developed countries in the African region that faces the double burden of communicable and non-communicable diseases where childhood obesity is one of them.

Objective: To estimate the prevalence of overweight and obesity in adolescent male children in Khartoum locality Using three different Reference Standards.

Methods: A cross –sectional Study conducted in three male secondary school children in Khartoum locality during 5 month period (October 2010-march 2011). A total sample of 784 male adolescents age 13-18 years were selected Using multi-stage cluster sampling technique. Weight and Height were measured according to Standard procedures. Body Mass Index were calculated and used to estimate the prevalence of Overweight and obesity Using three different reference standards : The New WHO age- and sex- specific BMI Charts, center for disease control and prevention age- and sex-

specific BMI Charts (CDC) and International Obesity Task Force age- and sex- specific BMI cutoffs .

Result: The prevalence of overweight was 11.9%, 8.8%, and 10.5% according to the New WHO age-and sex-BMI Charts, CDC age-and sex-BMI Charts and IOTF age-and sex-BMI-cutoffs while that of Obesity was 6.3%, 6.5%and 4.2% respectively. The WHO gave the highest estimates of overweight while the CDC gave lower estimates. The estimated prevalence of Obesity was very similar but still different using the new WHO and CDC Sex-and age-specific BMI charts while The IOTF gave lower estimates compared to the previous two standard definition.

Conclusion: Overweight and Obesity are emerging as health problem among Sudanese adolescents. It remains to be seen whether these estimates will show trends or not overtime. There is no one single international definition for overweight and obesity in childhood and so prevalence studies to estimate Childhood overweight and obesity better to use different definition so comparison between different studies can be easy.

OP24.A Diabetic Ketoacidosis, Determinants and Mortality Rate in Sudanese Children with Type 1 Diabetes Mellitus

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Background: DKA is common at diagnosis in children with T1DM, and has significant morbidity and mortality. Many risk factors were implicated in its development and degree of severity.

Objectives: To describe the frequency of DKA at the onset of T1DM, identify the determinants of DKA, assess its severity, and determine its mortality rate in children in Sudan.

Methods: Hospital records of 466 diabetic children up to 18 yr of age, diagnosed during the period 2006-2010 were reviewed (Gaafar Ibn Auf Children's Hospital, Khartoum). DKA was assessed mainly clinically using the severity criteria of Endocrine Clinics of North America 2000. Data were analyzed using the SPSS version 18. The differences in the mean values were calculated using the ANOVA test. Pearson's correlation coefficient was used to evaluate the relationship between variables. For all tests, P value < 0.05 was accepted as significant.

Results: Of all patients diagnosed with T1DM, 173 (37.1%) presented with DKA in the latest admission. The frequency of DKA in newly diagnosed children was 35.2%. The majority had either mild (50%) or moderate DKA (37.2%). The frequency of DKA was higher in older children ($p < 0.05$). The major precipitating factors were infection (56.0%), omission of insulin dose (25.6%) and low socioeconomic status (21.8%). There was a significant positive relationship between age groups and HbA1c levels ($p < 0.0001$). Moreover, girls had significantly higher latest HbA1c levels ($p < 0.003$). Two children died (0.4%).

Conclusion: Our study provides recent data in East African population, for whom data are sparse. The incidence of DKA at initial presentation of T1DM among children in Sudan is high due unawareness of the population. Older children with T1DM face an increased risk for developing DKA, due to frequent omission of insulin doses and probl-ems of non-compliance.

Intensive educational programs about the early symptoms of diabetes will reduce the frequency of DKA in new patients.

OP24.B Goiter among Sudanese children: 5-years experience of a paediatric endocrinology Clinic

Huda Abdel Moneim, Mohamed A. Abdullah

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This is a retrospective, descriptive study on childhood goiter at the paediatric endocrinology unit at GaaferIbn Auf Specialized hospital for children and a private paediatric endocrinology clinic in Khartoum state. The study included the records of the patients from January 2006 to the end of May 2011. The aim of the study was to analyze the aetiology of goiter in children referred to the above mentioned clinics. The study included 287 (71.4%) (aged 6 months to 18 years) patients with goiter out of 402 patients of thyroid disorder . They aged 6 months to 18 years with a female to male ratio of 2.2:1. Of those 249 (86.8%) had diffuse thyroid enlargement and 38 (13.2%) nodular goiter. Most of the cases were hypothyroid 130 (45.3%), followed by euthyroid 123 (42.9%) and hyperthyroid 34 (11.8%). Of the hypothyroid cases; 58(44.6%) were congenital [56(96.6%) dyshormonogenesis and 2(3.4%) dysgenesis], 55(42.3%) were acquired [35(63.6%) Hashimoto's thyroiditis, 1(1.8%) endemic disease and 19 (34.6%) were not specified] and 17(13.1%) of the hypothyroid were having no final diagnosis. On the other hand most of the goiterouseuthyroid patients 121(98.4%) were acquired [17(14.1%) Hashimoto's thyroiditis, 11(9.1%) endemic disease, 1(0.8%) papillary carcinoma and 92(76%) were not specified]. The goiterous hyperthyroid cases were mostly Graves 26(76.5%), followed by Hashimoto's disease 3(8.8%) and 5(14.7%) were not specified. Affordable facilities are needed to make specific diagnosis including urinary iodide.

OP25. Food Allergy in Children and Adolescents

Dr. Mamoun Elawad

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The UK leads the world in its numbers of children presenting with allergy. Food allergy is estimated to effect up to 6-8% of young children in the developed world. Classic presentations of food allergy, which are IgE mediated, are more easily defined and have strongly validated tests; making acceptability of these allergies to physicians and parents more straightforward. The non-IgE mediated allergies are in many ways much more in their formative stages. With a growing acceptance of their existence, recognition of their often subtle symptoms, and more recently the range of more subtle presentations of non-IgE meditated food allergy, can be masked within very common disorders that affect the gastrointestinal tract. With the lack of a good validated test, although there are many ongoing attempt to develop ones, the diagnosis is very much dependant on the recognition of these symptoms by the medical staff and then the elimination and restriction of the offending food from the diet. We will be looking at cow's milk allergy, as an example of these problems, through a series of clinical studies. We will be illustrating the variation between childhood and adolescent in food allergy. The time to diagnosis and time to recovery can be very prolonged over many years, in some cases leaving a significant morbidity on the child and family. The development of algorithms recently in young infants, to aid diagnosis, is a helpful step forward in the absence of a good lab based diagnostic test. Older children still remain a difficult problem. We will also discuss the time to recovery using firstly IgE mediated data and then non-IgE mediated data, to show that original times to recovery of 2-3 years clearly need updating, as we discuss a clinicians prognosis with families. The allergic march is well characterised but as we are all involved in the care of children who present with gastroenterological problems, we now face the "food allergic march" where, in the paediatric lifetime leading to adolescent, we see many more associated co-morbidities. These co-morbidities include ear, nose, and throat, minor immunodeficiency and recurrent infections, rhinitis and eczema. Some of these areas are still, very much like the gastrointestinal tract, an area of controversy. Eczema and the advances on the genetics of eczema are beginning to shed new light on the nature of this association and the role of dietary manipulation, in the management of severe eczema, is now far less contentious. Some research has indicated that the use of hypoallergenic formulae may prevent the development of allergies in atopic infants, especially atopic dermatitis. The story might not be as that simple in adolescent. We will try to illustrate the need perhaps of different models of care for these children and adolescents, as we begin to understand how

children who present with multsystem adverse reactions to food, can best be managed in the context of European/US/Australian models of care and are presented for consideration. To conclude; food allergy presenting as gastroenterological problems is best considered as a neuro-immune interaction. Gastro-oesophageal reflux is a symptom. It is caused by many underlying problems, of which food allergy is one. Both food allergy and reflux are common but the understanding of how non-IgE mediated food allergic problems manifest themselves in the gut is poorly understood. As we progress in our understanding of how allergies influence normal gut physiology, for example why do allergic refluxing children eat small volumes, we begin to understand the influence of allergens on the lower oesophageal sphincter and on reduced compliance of the stomach. Constipation is a symptom of hindgut dysmotility. The type of stool and frequency from the clinical history will usually explain the type of constipation. This can be as a result of acquired megarectum, slow transit constipation, or, more controversially, that which is a result of allergy. The spectrum of non-IgE mediated allergy and the involvement of the gastrointestinal tract is in its formative stages of classification, diagnosis and treatments in both children and adolescent.

OP26. Pattern of Liver Diseases in Sudanese Children

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We aimed at determining the pattern and the incidence of liver disease in the Sudanese children referred to the Gastroenterology unit as GaafarIbn Oaf Specialized Children Hospital, which have not been studied before. Materials and Methods: In a cross-sectional study conducted over 5 years, 450 liver needle biopsies were sent to the pathology laboratory of our center. Slides were prepared from paraffin-embedded blocks, stained by routine H & E and special stains and were then reviewed. The frequency of each disorder, separately and in combination with the age group or gender of the patient were compared with other similar studies. Results: The male to female ratio was 1.5:1.The age range between 1 month and 15 years old and 42% were less than 1 year old. The most common histological diagnosis was liver cirrhosis where no specific cause could be found(26%) followed by neonatal hepatitis(20%),fatty liver(12%), Billary Atresia(10%),chronic hepatitis(8%), metabolic liver disease (6%), Progressive Intrahepatic Cholestasis (5.5%), non specific pathological changes (4.4%) and Hepato Cellular Carcinoma in(4%). Conclusion: A liver biopsy is a useful and practical tool for the appropriate diagnosis of pediatric liver diseases. We found that Idiopathic Liver Cirrhosis, Neonatal Hepatitis, Fatty Liver, Billary Atresia and Chronic Hepatitis in the stated order are the most prevalent histological diagnosis in Sudanese children. Hepatocellular Carcinoma is significantly high in our pediatrics population.

OP27. Anti-vitamin D Urban Umbrella in Alfanateer Area, Jubail Industrial City, KSA

***Swar M.O, **Kovoor L, ***Gabriel S.G.**

Keywords: rickets, sunlight, inter-condylar distance

Introduction: With the social acceptance of the new life style inside modern apartments and the long indoor stay caused by multimedia entertainment and games, an overwhelming surge of cases of nutritional rickets is documented in modern cities in different parts of the world.

Objectives: To describe the cause and clinical pattern of nutritional rickets in Jubail Industrial Area and advocate non-invasive prognostic tools and preventive measures.

Methodology: This is a descriptive hospital-based study where the criteria for inclusion were the presence of physical rachitic changes in children attending the referred paediatric clinic. All patients were examined, investigated, treated and followed up in the same hospital setting.

Results: Out of the 55 patients included in this study, 35 were males and 20 were females. Thirty four patients (61.8%) presented with symptoms and signs related to rickets. There was an evident seasonal variation in incidence where two peaks (September and March) were observed and that was coinciding well with the end of summer and winter seasons when long indoor stay and poor exposure to direct sunlight (96.3% were exposed to sunlight for one or less than a day per week)are expected. Radiological features of active rickets were seen in 44 patients (80%) and evidence of healing rickets was seen in 11 patients (20%). Inter-condylar distance before and after treatment was measured every six months and was seen to decrease regularly.

Conclusion: Nutritional rickets secondary to long indoor stay and poor exposure to direct sunlight is a major health concern in most of the modern residential areas. It has a direct impact on growth of children and a heavy burden on the health services. Health education and early vitamin D supplementation are of paramount importance to reduce its incidence. Inter-condylar distance may be used as a non-invasive prognostic tool to document response to and improvement with treatment.

OP28. Model of Inflammatory Bowel Disease Care in Children and Adolescents

Dr. Mamoun Elawad

A Guideline for Consistent Reliable Care:

Diagnostic and therapeutic interventions that are appropriate and recommended for a very large percentage of children and adolescents with Crohn's disease and ulcerative colitis.

Complete diagnostic and initial evaluation:

- FBC, ESR, and serum albumin
- eosophagogastroduodenoscopy with biopsyand colonoscopy with biopsy
- imaging of the small intestine (upper GI and small bowel series; or CT scan with oral and IV contrast; or MRI with contrast; or capsule endoscopy)[1]
- other studies as indicated

Extent of disease: documentation of disease location (esophagus, stomach, duodenum, jejunum, ileum, right colon, transverse colon, left colon, rectum, perineum)

Crohn's disease phenotype: based on the Montreal classification (non-stricturing, non-penetrating; penetrating; or stricturing)

Severity: Physician Global Assessment (Quiescent, Mild, Moderate Severe) Visit frequency: it is recommended that each patient be examined and evaluated at least once every 6 months (≤ 200 days)

Treatment with 5-ASA:

When using the following medications, use the recommended doses:

1. Mesalazine 80 (60-100) mg/kg/day up to 4.8 g/day for active colitis.
2. Mesalazine at least 30(30-100) mg/kg/day up to 4.8 g/day for maintenance of quiescent or inactive colonic disease.
3. Sulfasalazine 70 (50-80) mg/kg/day up to 4 g/day for active colitis.
4. Sulfasalazine at least 25(25-80) mg/kg/day up to 4 g/day for maintenance of quiescent or inactive colonic disease.

Treatment with prednisolone:

1. Prednisolone is indicated for induction of remission. Long-term treatment with prednisolone can induce significant adverse effects and has not been shown to be effective for maintenance of remission.
2. To induce remission the dose of prednisolone is 1 mg/kg/d, rounding up to the nearest 5 mg, up to 40 to 60 mg per day, PO for 1 to 4 weeks.
3. Taper prednisolone and discontinue it within 16 weeks after treatment was begun.

a. Prednisolone resistance is defined as an inadequate improvement after 2 to 4 weeks of treatment with prednisone.

b. Prednisolone dependence is present when a patient, who initially improves in response to prednisolone treatment, develops a recurrence when the dose is being tapered or within 6 months after prednisolone is discontinued.

Treatment with thiopurines:

1. Prior to initiation of a thiopurine, determine thiopurinemethyltransferase (TPMT) genotype or phenotype.
2. Choose a starting dose of azathioprine or 6-mercaptopurine (6MP) based on TPMT. If there is:
   a. absentor very low TPMT activity, do not use a thiopurine.
   b. intermediate TPMT activity, start azathioprine at 1.0 to 1.5 mg/kg/day or 6MP 0.5 to 0.75mg/kg/day.
   c. normal to high TPMT activity, start azathioprine at 2.0 to 3.0 mg/kg/day or 6MP 1.0 to 1.5 mg/kg/day.
3. For a maintenance dose of thiopurine use either at least the starting dose as defined above, or base the dose on blood concentrations of thiopurine metabolites or evidence of toxicity.
4. Monitor CBC and ALT for evidence of toxicity.
5. For patients treated with a thiopurine, when disease is moderately or severely activeit is recommended that the 6-TGN level be measured (if not done in the previous 90 days).

Treatment with methotrexate:

1. For induction of remission the recommended dose of methotrexate is 15 mg/m^2, up to 25 mg, IM, subcutaneous or oral once a week.
2. For maintenance of remission the recommended dose of methotrexate is 10 to 15 mg/m^2, up to 15 to 25 mg, IM, subcutaneous or oral once a week.
3. Folic acid supplementation is recommended in a dose of 400 micrograms or 1 mg per day.
4. Monitor CBC and ALT for evidence of toxicity.

Treatment with infliximab:

1. It is recommended that a skin test (PPD) and/or a chest radiograph for tuberculosis be obtained before initiation of infliximab therapy.
2. For induction of remission it is recommended that infliximab 5 mg/kg IV(or rounding up to the nearest 100mg) be used as an initial dose, with repeat doses of 5 mg/kg IV 2 and 6 weeks later (0, 2, 6 weeks).
3. For initial maintenance of remission it is recommended that infliximab 5 mg/kg IV (or rounding up to the nearest 100 mg) be given every 8 weeks.
4. For patients treated with infliximab, when disease is moderately or severely active it is recommended that the infliximab trough level be measured (if not done in the previous 180 days).

Nutritional and Growth Assessment:

Status	Definition
Nutritional status at risk	Weight percentile changed lower by one isobar *or* Weight stable (no gain) or 1% to 9% loss (involuntary) Body mass index <10th percentile for age (Adjust for prednisone treatment)
Nutritional failure	Weight percentile changed lower by two isobars *or* Weight loss ≥ 10% Body mass index<3rd percentile for age (Adjust for prednisone treatment)
Nutritional status satisfactory	Not at risk or failure
Growth status at risk	Height percentile changed lower by one isobar *or* Height percentile<10th percentile for age *or* Height velocity<10th percentile for age
Growth failure	Height percentile changed lower by two isobars *or* Height percentile<3rd percentile for age*or* Height velocity<3rd percentile for age
Growth satisfactory	Not at risk or failure

OP29. Causes of Portal Hypertension in Sudanese Children

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Summary: The etiological profile of Pediatric Portal hypertension in our hospital, Gafaar Ibn Oaf Specialized Children Hospital a tertiary referral children hospital for the whole of Sudan, showed that the commonest causes were extra hepatic portal venous obstruction (EHPVO) and liver cirrhosis. Cryptogenic liver cirrhosis was the most common cause of cirrhosis.

Introduction:

Portal hypertension is the most common cause of upper gastrointestinal (UGI) bleed in Sudanese children.[1]

Methods

Children (≤ 15 years age) who had clinical features of portal hypertension and who had undergone UGI endoscopy and abdominal imaging between January 2005 and January 2010 were included in the study. For statistical analysis, the categorical variables were expressed as frequencies and percentages and the continuous variables were expressed as mean ± standard deviation.

Results

A total of 300 children were included in the study. The male: female ratio was 220:80 (2.8:1) and the mean age was 9.2±3.4 years. Out of the total, 120 children (40%) were from the west of Sudan, 100 children (33.3%) were from South of Sudan and the rest were from the other different part of Sudan mainly the East and the middle. Only 9 children (3%) were from the North of Sudan.

The etiology of Pediatric Portal hypertension was as follows: EHPVO in 210 children (70%). Intrahepatic causes in 75 children (25%), 9 children (10%) with Pri portal fibrosis, 4 children (4.4%) with Veno occlusive disease like, usually secondary to Tuberculosis and 2 children (2.2%) with Budd Chiari Syndrome. Table 1

The sub classifications of the Intrahepatic causes was as follows: Cirrhosis,61 children (68%) was the most common Intrahepatic cause of Pediatric Portal hypertension, followed by Non cirrhotic Portal Fibrosis NCPF,in 10 children (11%),Caroli's syndrome in 2 children(2%),and unclassified causes in 18 children(20%).

The work up of the etiology of cirrhosis revealed that cryptogenic Liver Cirrhosis in 28children(45%),Hepatitis B in 16 children(27%),Wilson disease in 9 children (15%),Autoimmune Hepatitis in 6 children (10%)and Colydocal cyst in2 children(3%).

Discussion

The most common cause of Pediatric Portal hypertension in our study was EHPVO (70%), followed by intrahepatic causes (25%), a pattern similar to North Indian studies.[3,4,6] However, intrahepatic causes (Mainly NCPF) appear to predominate in the Egyptian study and BCS was an important cause in the West Indian study.[5,6] Studies from outside Sudan, showed that intrahepatic causes were more common.[8-10] The Australian data from the same centre, approximately 20 years apart, showed that although initially EHPVO was more common than Intrahepatic causes, there was a reversal of the pattern later on , One wonders if socioeconomic progress has a bearing on the changing etiological spectrum and whether or not the lower prevalence of EHPVO was due to improved socioeconomic circumstances and hence lower risk for infections and dehydration. Also it makes you wonder whether Thrombophilia due to hereditary factors has a part to play in this high figure as in the Egyptian study (11), as consanguity is common in our society too! .The Thrombophilia screen is not available in Sudan, it has been done in only 5 children abroad and it was negative.

The majority of our patients were from West, South and East states of Sudan (85%) while those belonging to North and Middle states being only 15%... lower prevalence of EHPVO could be due to improved socioeconomic circumstances and hence lower risk for infections and dehydration.

Among the known causes of cirrhosis, hepatitis B, autoimmune hepatitis and Wilson disease.Cryptogenic Liver Cirrhosis was common in the Southern children, that makes one wonder whether we have unrecognized metabolic disease? or specific type of childhood cirrhosis like the Indian one ? or may be the malnutrition fatty liver is not as benign as people thought it was? As a great percentage in younger age group 1-5 years has fatty liver which eventually turned into cirrhosis as they get older, in the same manner as we get in NASH International data showed Biliary Atresia, Alpha-1 Antitrypsin deficiency, cystic fibrosis and sometimes cryptogenic causes being much more frequent causes of cirrhosis. [8-10]

The small percentage of Periportal fibrosis in our study is due to the fact, it usually happens in older children whom they are still looked after by our adult colleagues. The small number of Billary Atresia in our study is due to the fact that children with this disorder

usually present late and die from the complications of Billary cirrhosis usually in the first year of life and the same goes for other inborn error of metabolic and development liver diseases. The retrospective nature of our study and the fact that it was hospital-based were the limitations of our study.

OP30.A Prevalence and Impact of Malnutrition among < 5 of Age in Red Sea State (RSS)

Dr. Khalid Elkhier Elzein
MPCH (Khartoum)

Red sea State considered as desert and food deficit area.

Estimated population is 1.396.100 (2008). <5 of age is 150.870 (14.1%). < one year is 41.883 (3.1%), high index of illiteracy was observed up to 70% among female over 15 years & 62% in population above 15 years.

Red Sea State has the highest infant mortality in the country 116/1000. < 5 mortality rate at 165/1.000 live births. Maternal mortality rate is 556/100.000.

In RSS Malnutrition is consider as a major health problem in < 5 of age and represent above 30 % of daily hospital admission.

Data of this study is collected from Malnutrition surveillance assessment in RSS in 2005-2006-2009. (CMOH & Oxfarn Unicef) the major objective of these studies are:

1) Assist the arthropemetric status of <5 of age in selected samples using Z - scores weight / height ± oedema.

2) Determine the morbidity and mortality in previous 3 month (household).

Since 1999 global acute Malnutrition (GAM) is between 11 .4 % up to 30.8 % above the emergency thresholds (15%). sever acute Malnutrition (SAM) is 3.7 %. up to 15% is recognized as an emergency thresholds (3%).

Night blindness up 10.6% among study group above 4.9 - 9.7% is consider as a major health problem.

< 5 mortality in this study is 1.08/10000 / day in 2005 with considerable decline to 0.18 /10000 in 2009.

OP30.B Current Breast Feeding (Bf) Practices in Al-Baha Region, Saudi Arabia and Factors Affecting it (Pre & Post – Intervention)

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Dr. Carmen A. Nassar*, & Prof. Salwa Rashad**
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Islam encourages mothers to nurse their babies for prolonged periods (up to two years). BF is considered the preferred method of feeding babies because it offers many advantages to both babies and mothers.

The study was conducted in Al-Baha region, Saudi Arabia (twice) in the period between January and November, 2003 (pre-intervention) and 2010 (post-intervention). Pre-intervention (2003) study was followed by intervention plan in form of workshops for physicians and mothers, scientific symposia for all medical staff and establishment of breast feeding clinic in KFH and use of educational materials in Al Baha hospitals. In both studies, participants were 714 mothers having 714 infants below 24 months, from both sexes and equally distributed among six age groups. All the sampled mothers completed answering questionnaires consisting of personal information, data regarding the common factors affecting the current BF practice.

The results showed remarkable improvement in all breast feeding rates, but still far below international safe rates.

Post- intervention versus pre-intervention results showed: significantly less percent of mothers who never breast feed, significantly less percent, around half of the mothers who had BF duration (BFD) = 0- 30 days, increase ≥ 4 times in the percent of mothers who had BFD= (30-120) and BFD = (120- 240) and similar percent of mothers who had BFD higher than 240 days. Also it showed higher values of Est. BFP for all mother's age groups. Regarding education of the mothers, there was significant increase in BF rate specially in mothers who cannot read or write and those whose education level is before high school. Also the increase in BF rate was more in working mothers (3 times) and in mothers from families with high income than non working ones and those from low income families respectively.

Although, these results proved a remarkable improvement in breast feeding practice, but they are still far below safe international rates.

The current overall breast feeding rate was only 45.4%, current exclusive breast feeding rate was only 4.2%, partial breast feeding rate was 41.2% and bottle feeding rate was 54.6%, 37 of the sampled mothers continued breast feeding for one year and only 12.6% of them continued breast feeding (currently) for two years.

The factors most significantly associated with the outcome of breast feeding were the early supplements, misperceptions about breast feeding, mother's education, working mothers, baby refusal, contraceptives, inconvenience and use of teats. The mother's knowledge about breast feeding was very poor in both studies but improved in post-intervention study.

The current study emphasizes that the most significant factors affecting the outcome of breast feeding are highly modifiable by health education. This information is crucial for the development of a successful breast feeding promotion plan in this community. All the local hospitals should be prepared to be certified as baby friendly hospitals.

OP31. Neonatal service at limited resources nation

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Neonatal care and scientific progress had made tremendous improvement in neonatal mortality rate and increased life expectancy in developed countries. However this progress has not been even across the globe. While developed countries enjoy better health, developing countries suffer there are number of challenges to be met and neonatal mortality remains UN acceptably high. In African nations it ranges from 35 -100/1000 live birth. This is in contrast to developed nations the neonatal and perinatal mortality stands at only 3.4 and 8.5/1000 live births respectively. The main reasons for this gap are poor infrastructure, resource limitations and lack of communication system developed by neonatal units in the developed nations. The major barriers to prevention of high neonatal mortality rate in developing countries are lack of skilled personnel and lack of equipment at every level of the health-care system. For example, in rural areas, a skilled attendant, known to decrease neonatal mortality drastically at births, seldom is present. In addition, the workforce gap between developing and developed countries is a major barrier to progress in health-care delivery. The reduction of child mortality has been included among the *Millennium Development Goals (MDG-4)* that the United Nations has set to be attained by year 2015. Without reduction in global neonatal mortality rate MDG-4 will not be achieved [Strategies which address inequalities both within a country and between countries, are necessary if there is going to be further improvement in global perinatal health. This will be achieved by outreach teaching and training. In addition, regionalization of the perinatal and neonatal services will save a lot. In this presentation I will address the solution for improving neonatal services in such limited resources, based in our experience at Saudi Arabia.

OP32. Over view of Community neonatal services in Sudan

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Neonatal death describes all babies born alive and dies in the first 28 days of life. Globally neonatal death accounts for 38% of deaths in children aged younger than 5years. Infant and under-5 children mortality rates in developing countries have declined significantly in the past 2 to 3 decades. However, there are 2 critical indicators; maternal and newborn mortality, have hardly changed. The Neonatal mortality in North Sudan remained to constitute almost

50% of the IMR (81/ 1000 LB) throughout the last 20 years, a condition that merits further analysis of the underlying causes and accordingly, develop effective interventions. The main causes for neonatal mortality are not well defined in Sudan. For many mothers, the provision of health care during and after childbirth is virtually non-existent. More than 80% of deliveries in Sudan occur at home, where the village midwives (a cadre who receives 9 months training) or the medical assistant is the sole health care provider. Less than half of all births (49.2%) are attended by a qualified health professional. More than 66% of mothers do not exclusively breastfeed their infants for the first six months and only one-third of children (32.6%) have had their births registered. The high maternal and neonatal mortality rates in Sudan suggest gaps in access to and quality of maternal and neonatal health services. These Gaps can lead to "three delays": 1-Delay in deciding to seek care, 2-Delay in reaching appropriate care,3- Delay in receiving care at health facilities . The first two relate directly to the issue of access to care and inadequate funds for transportation. The third relates to inadequacies within the health care system itself. This could be lack of properly trained personnel, transfusion equipment and other infrastructural inadequacies. Unless the three delays are addressed, no safe motherhood programme can succeed. Antenatal care visits provide a vehicle for important interventions and programs to support the health and wellbeing of the pregnant woman and her unborn child. The World Health Organization (WHO) recommends four antenatal care visits, which at a minimum should include the following services: (1) blood pressure measurement, (2) urine testing for bacteruria and proteinuria, (3) blood testing to detect syphilis and severe anemia and, (4) tetanus immunization. In addition, pregnant women should receive information counseling on self-care at home, nutrition, breastfeeding, family planning, birth planning, advice on danger signs during pregnancy/delivery and emergency preparation. Maternal and child health are closely linked and the results are greatest when interventions are combined as *packages* that address the period before and during pregnancy, through birth and the neonatal stage, and then through early childhood (up to five years of age).[13,14,15] The most effective approaches provide a *continuum of care* throughout this whole period. The Continuum of Care applies to these periods: 1.Pre-pregnancy 2. Pregnancy 3. Birth 4. Postnatal 5. Childhood . Available evidence indicates that universal provision of this basic continuum of care in developing countries would reduce maternal deaths by at least 74% and child deaths by at least 60%.

OP33. Quality of neonatal care in Khartoum state public hospitals and the Sudan at large

Dr. Hiba Mustafa Bashar

Neonatal death contributes 38% of the estimated 10.5 million under-five deaths which occur every year globally [2]. It is estimated that each year four million neonatal deaths occur, and almost exclusively in low income countries [3]. Sudan is facing serious challenges in achieving the Millennium Development Goals (MDGs), particularly Goal no 4, 5. The levels of maternal and neonatal mortality in the country are unacceptably high. Current neonatal mortality and infant mortality rates are reported at 41 and 81 per 1000 live births, respectively in the latest Sudan statistical report 2007 under 5 mortality rates which are very high 112/1ooo, infant (below 1 year) mortality rate 81/1000 and neonatal mortality rate 41/1000. There is generally poor state of primary care facilities [15] and hospital care in Africa [16] but there are few data on the specific issue of neonatal care. Our Poor health statistics point out to a problem in order to reach the MDG goal 4 we have to reduce the neonatal death & to do so it is important to have a look at the quality of neonatal care our hospitals offers. The area of neonatal period is very important & the first hours post delivery has great impact on the neonatal survival. There is lack of information regarding various aspects of neonatal care this shows that neonatal period is neglected in Sudan (no man area). The objective of this research was mainly to evaluate the quality of neonatal care at Khartoum state public hospitals. This was done by evaluation of the providers of the neonatal care at Khartoum state public hospitals in terms of knowledge, skills and attitude, the resources, the organization of staff and system of care, the hygiene and safety of facility, staff and newborn and the parents' satisfaction. Assessment of neonatal services in 22 Hospitals in another 11 states (FMOH assessment report 2005), revealed that nurseries for basic neonatal care were present in only 41% of the surveyed hospitals, just above 50% had separate neonatal wards and incubators; whereas only 36.4% of neonatal wards were supervised by nurses qualified in neonatal care.

OP34. Neonatal Resuscitation Training in Sudan - Where are we?

Abdelmoniem M. Hamid *, Sami Ahmed **,
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For many years, neonatal care in Sudan has been lagging behind. Neonatal mortality was estimated at (41 per 1000) in 2006. The new NMR figure released in 2010 is alarming (56 per 1000). The high figure is attributed to poor neonatal care resources and shortage of staff trained in neonatal care. As we know, 10% of all newborns require neonatal resuscitation at birth, which could be performed by trained medical or paramedical personnel. Only 1% requires neonatal intensive care therapy. With limited resources, and shortage in NIC units, and with home deliveries of more than 80%, it becomes a necessity and a priority to help those 10% of babies, through training staff involved in deliveries and principles of basic neonatal resuscitation. These are Hospital and village midwives. Neonatal Resuscitation training has been introduced to Sudan in 2002 with help of our colleagues in Ireland. In 2006, the program has become more structured with 3 NRP provider courses plus an instructor course each year. About 16 courses were run over 4 years period, with the help of Pediatric Consultants colleagues and registrars. More than 1000 have been trained in Khartoum, including pediatric consultants and registrars, obstetric consultants and registrars, anesthetists and neonatal nurses. 150 instructors have been selected. We recently introduced a new course for junior doctors who deal with newborn deliveries in the capital and different states (Registrars and Medical Officers). It is named (Basic Neonatal Care), and it deals not only with basic neonatal resuscitation, but also covers management of common Neonatal Problems. The first course started in Dongola in February 2010. We organized neonatal resuscitation training courses for hospital midwives (Neonatal care and infection prevention). That has been going on since 2007, and 30 courses have been done to teach midwives the skills of neonatal resuscitation, neonatal examination and infection prevention. About 760 midwives have been trained through CPD Centre in Khartoum and other 7 states (Kordofan, Blue Nile, Gedarif, Kassalla, Red Sea and Northern state).As for village midwives, we were involved in previous limited neonatal resuscitation training courses done for them through Ministry of Health in 2007. We hope the implementation of HBB program in the future will provide comprehensive training and skills for this important sector. The aim of the presentation is to highlight the importance of integration of neonatal resuscitation training to target all those involved in newborn care aiming at reduction of neonatal mortality and morbidity.

OP35. Dongola project: Situation analysis and intervention program

***Dr. Mohamed Khalil Ali & **Prof. Eissa O. Alamin**
***FRCP, FRCPCH, DCH, DTCH,*International University of Africa**
****Ribat University**

The study was conducted through review of literature complemented by a field study in Dongola locality. The overall objective was to assess and analyze the quality of the existing healthcare services provided during pregnancy, delivery and neonatal period in the area; determining existing levels of skill and capacity of health providers and community-based workers, and to work with the local and federal authorities to bridge the gaps in services by implementing the appropriate interventions which are needed to improve newborn health in order to reduce Neonatal mortality in

Dongola locality, northern state and the Sudan at large. Based on the result of the research, the project will develop a package of maternal and newborn care interventions and evaluate the impact of this package when implemented through two different community-based delivery strategies, namely Home Care (HC) and Community Care (CC) models. The project will have an ongoing supportive supervision, monitoring, and evaluation system. The Situational analysis and the adequacy of the implementation of the interventions will be closely monitored and a detailed record keeping system will be followed. Frequent analysis of the records will be conducted to investigate the factors that facilitate or impede the implementation of selected components of the intervention package and strategies and actions will be taken appropriately.

OP36. Dongola project: Progress of the intervention program

Prof. Eissa Alamin

Abstract at (OP35.)

OP37. Perinatal Neonatal Outcomes Research study in the Arabian Gulf (PEARL Study) an experience of surveillance from the State of Qatar

Sajjadur Rahman[1],Walid El Ansari[2],Abdul Bari Bener[1], Hilal AlRifai[1],Halima Al Tamimi[1],Nuha Al Nimeri[1], Sarah El Tinay[1],Emirah Latiph-Tamano[1], Faiza Rani[1]

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The current Maternal and Neonatal outcomes in the State of Qatar are comparable with most developed world countries[1,-5]. Reduction in poverty and high level of women's education are the major associations of these improved outcomes[3]. The Maternal Mortality in Qatar was zero during 1993, 1995, and then between 1998 and 2000[3]. The Maternal Mortality Ratio was 11.6/100,000 in 2008[3]. However, the Perinatal Mortality remains high due to high still birth rates[1, 3]. Similarly the rate of low birth weight and the incidence of congenital anomalies remain high and constant[1]. PEARL Study will carry out an in depth research in these areas by developing a prospective National Perinatal Registry for Qatar called Q-Peri Reg. The registry will document all perinatal events including Maternal, Perinatal and Neonatal Mortality and Morbidity outcomes and their socioeconomic correlates. The data is being collected prospectively, on daily basis; using pre designed maternal, perinatal and neonatal Performa's. The data will be entered, by dedicated research assistants, into a tailor made electronic data base system, using password protected software hosted in a central server. The registry will document the outcomes of all pregnancies in the State of Qatar (Approximately 20,000 per year) over a period of three years. The data collected will be analyzed using spatial temporal models and disseminated as monthly, quarterly, biannual and annual reports which will be used for strategic planning and re organization of health systems. Q PeriReg will strengthen Qatar's capacity of perinatal data storage and analysis which could potentially be shared at a global level to help reduce Maternal, Perinatal and Neonatal Mortality and Morbidity.

Conclusion: A tailor made prospective National Perinatal Registry is an Innovative and reproducible surveillance system for documentinglongitudinal trends in Maternal, Perinatal and Neonatal Mortality and Morbidity outcomes and their correlates. The system will provide a data driven model of strategic Perinatal health care planning. This presentation will describe the initial outcomes of PEARL study and the role of Q-PeriReg as an Innovative and reproducible health metrics and evaluation tool of Maternal, Perinatal and Neonatal Mortality and Morbidity and their correlates.

OP38. Evaluation & Management of Skeletal Dysplasias

Prof. Faisal Ahmed

Consultant Endocrinologist at the Royal Hospital for Sick Children, Yorkhill, Glasgow

There are over 350 conditions that are known to be associated with a genetic disorder of skeletal development. These conditions are clinically and genetically heterogeneous and are characterised by abnormalities in growth, development or differentiation of the skeleton. Broadly, however, they can be divided into osteodysplasias, dysostoses, disruptions and chondrodysplasias. However, this review will focus on chondrodysplasias which are often generally referred to as skeletal dysplasias. The overall incidence of skeletal dysplasias is approximately 1 case per 4000-5000 births.

The skeletal dysplasias are a heterogeneous group of conditions of abnormal cartilage and bone development resulting in a wide range of phenotypes of variable severity from perinatal lethality to mild short stature. Elucidation of the molecular mechanisms underlying these disorders is allowing us to understand more about the aetiology of these conditions and classify them based upon the underlying gene defect. This review will discuss the development of bone and cartilage in relation to these conditions, present a clinical approach to their diagnosis and management and consider new avenues of therapy.

OP39. Disorders of Sex Development among Sudanese Children

Prof. Mohamed Ahmed Abdullah,Umsalama Saeed, Asjad Abass, Lubna Alkarib, Weam Arabi, AbdelBassit S. Ali, Emad Fadl Almula.

A newborn with ambiguous genitalia is considered as a medical and psychosocial emergency as two major issues need to be immediately addressed; the relationship of sexual ambiguity to a possible life-threatening disease and the sex of rearing. Chidren as well as their families who have had the wrong sex assigned to them in infancy could face considerable social and psychological problems. Diagnosis and management of these disorders needs understanding of the basic pathophysiology, expert clinical judgement, specialized diagnostic facilities, medications and skilful surgery among others. Management needs a multidisciplinary team including pediatricians, paediatric endocrinologist, surgeons, geneticists, psychologists in addition to the family and subject understanding religious leaders. As is the situation in many developing countries these teams and investigative facilities were not available in Sudan and therefore many cases were either missed, or managed on guess basis. This is compounded by the fact that most deliveries take place at home and sex assignment was left to the discretion of the midwife .In this cross sectional descriptive study we review our 5 years experience of the University of Khartoum Paediatric Endocrinology unit which started in January 2006 at Gaffar Ibn Oaf Children's Hospital and Suba University Hospital. During this period about 122cases, the biggest series in the region, were seen. The commonest cause was congenital adrenal hyperplasia followed by XY disorders of sex development particularly androgen insensivity syndromes and true hermaphrodites. Investigative facilities were available however some tests had to be sent abroad and the cost was prohibitive. The mean cost of investigating one case was over 800 SDG excluding laparoscopy and others. These cases were managed by a multidisciplinary team. Availability of laparoscopy helped us in reducing the cost of many dynamic tests and we believe this is a cost effective tool in developing countries. In many cases we had to do sex reassignment even at an older age. Guidelines for manageing these cases in Sudan including the religious opinion will be discussed with emphasis on the importance of intra and interinstitutional cooperation.

OP40. Hypoglycaemia in infants

Dr. Khalid Hussain

London Centre for Paediatric Endocrinology & Metabolism Great Ormond Street Hospital for Children NHS Trust & The Develop-mental Endocrinology Research Group Molecular Genetics Unit, Institute of Child Health,University College LondonWC1N 1EH UK

Abnormalities in glucose homeostasis are common in the childhood period. Hypoglycaemia is commonly observed in premature infants, those born with intrauterine growth retardation, and in infants of diabetes mothers. Being born small for gestational age is by far the most common cause of transient hypoglycaemia in

the newborn period. Severe and persistent forms of hypoglycaemia may be due to congenital hyperinsulinism. The identification of patients with hyperinsulinaemic hypoglycaemia is extremely important as this is a major cause of hypoglycaemic brain injury. Other endocrine causes of hypoglycaemia include adrenocortcotrophic hormone (ACTH), cortisol and growth hormone deficiency. On clinical examination mid-line defects, including cleft palate may indicate congenital hypopituitarism whilst the existence of ambiguous genitalia could indicate congenital adrenal hyperplasia. Hypoglycaemia may also be a manifestation of an underlying metabolic disorder such as an organic acidaemia (methylmalonic acidaemia), tyrosinaemia, galactosaemia and maple syrup urine disease. Hypoglycaemia occurs as a major presenting symptom in four main genetic disorders of hepatic glycogen metabolism, namely glycogen synthetase deficiency, glucose-6-phosphatase deficiency (type I glycogen storage disease), debrancher and phosphorylase deficiency (type III and type VI). Congenital defects of the gluconeogenic enzymes (fructose 1-6, diphosphatase, pyruvate carboxylase and phosphoenolpyruvate carboxykinase, PEPCK) all cause severe lactic acidosis in association with hepatomegaly and hypoglycaemia. Fatty acid oxidation disorders may also present with neonatal hypoglycaemia. The commonest disorder of fatty acid β-oxidation is Medium-chain acyl-CoA dehydrogenase (MCAD). This is an autosomal recessive condition characterized by intolerance to prolonged fasting, recurrent episodes of hypoglycaemic coma with medium-chain dicarboxylicaciduria, impaired ketogenesis, and low plasma and tissue carnitine levels. The disorder may be severe, and even fatal, in young patients. Other defects of β-oxidation (Long-chain acyl-CoA dehydrogenase) may present with hypoketotic hypoglycaemia associated with neurological (hypotonia) and cardiovascular complications (cardiomyopathy). The pattern of dicarboxylicaciduria accumulation is characteristic for each enzymatic defect of the β-oxidation spiral.

OP41. Recognition and diagnostic approach to acute Metabolic disorders in the neonatal period

Dr. Sarar Mohamed

Department of Pediatrics, King Khalid University Hospital and College of Medicine, King Saud University, Riyadh, Saudi Arabia

Inborn error of metabolism (IEM) is a group of inherited disorders that cause significant neonatal morbidity and mortality. This diverse group of diseases present with different clinical manifestations that make the diagnosis a real challenge. Early detection and appropriate investigations prevent complications and save lives. The aim of this presentation is to enable general pediatricians to clinically recognize IEM and plan relevant investigation at the appropriate time in a cost-effective manner especially in countries where resources are limited.

OP42. Study on Rickets in Sudanese children

Wiam A. Arabi, Mohammed A. Abdullah

The Endocrine Division, Department of Paediatrics and Child Health, Faculty of Medicine, University of Khartoum and Soba Khartoum University Teaching Hospital.

This is a descriptive, retrospective, hospital-based study conducted in the endocrine unit in Khartoum (Gaffer Ibn Auf and Soba hospitals) in the period from January 2006- July 2011.

The objectives are to study the pattern of clinical presentation of rickets in different age groups and to differentiate the different types of rickets and to identify the possible risk factors.The study included 147 patients: 83 males and 64 females. The age groups were as follows: 11 below the age of 2 months, 103 were between the ages of 2 months and 5 years, 17 were between 5-10 years, while 16 of the patients were adolescents> 10 years. The study tools included questionairs and patients records.The commonest presenting symptoms were delayed walking and limb deformities, while in the age group less than 2 months convulsions was the first symptom at presentation. Regarding the different types of rickets; nutritional was the commonest type especially in those less than 5 years, while genetic rickets was found in all age groups: 20 cases of genetic rickets were found; 9 cases of which were type 1 vitamine D dependent rickets, 2 pairs of patients were siblings and in the remaining 5 patients there was positive family history. Type 2 vitamine D dependent rickets was found in 11 patients, 3 of the patients were siblings. Familial hypophosphataemic rickets was found in 2 patients. Rickets secondary to proximal renal tubular acidosis was found in 8 patients .Rickets secondary to celiac disease was diagnosed in 8 patients. Risk factors included reduced sun exposure and lack of vitamine D supplementation especially in those with malnutrition or malabsorption and those living in flats including many high social class families. Adolescents were mainly having rickets due to very low consumption of milk and dairy products.It is recommended that those living in flats should give their infants prophylactic VD.Adolescents need dietry health education to take more diary products and reduce consumption of fuzzy drinks.

OP43. Growth assessment among Sudanese children and adolescents with Congenital Adrenal Hyperplasia 21-hydroxylase deficiency: Early versus Late diagnosis.

Ahmed Y. A. Ibrahim, Ahmed SF, Abdullah M.A.

Background: In CAH, under treatment exposes the patient to the risk of adrenal crises, and at the same time advance in the bone age and then loss of growth potential Over treatment results in growth retardation and obesity. In previous reports there is no increase in height velocity in the first year of life in untreated patients.

Aims: To study the growth pattern among our patients with CAH-21 hydroxylase deficiency, in relation to the age of initiating therapy.

Methods: We studied 34 children and adolescents who were attending the endocrinology clinic in the main two paediatric endocrinology center in the country. All growth parameters were measured while they were attending the clinic, the rest of clinical data were found out from the medical records. Patients divided in to groups depend on the age of diagnosis and the type(salt wasting and simple virilizing).

Results: The groups who were diagnosed late, have better out come than who were diagnosed early in the height SDS and height velocity, they are also closer to their target height and have less BMI SDS.

Conclusions: Glucocorticoid doses in infancy and early childhood have an adverse effect on height outcome and BMI. These effects can be minimized by a maximum decrease of glucocorticoid doses in this period.

OP44. Evaluation and management of the first unprovoked seizure

Dr. Hadi Al-Malik

Consultant Paediatrician, Child Neurology and Developmental Medicine, Clinical Ass professor, Faculty of Medicine, UAE University, Neuroscience Centre, Tawam hospital, Al Ain, UAE

Labeling a child as epileptic is so devastating to the family and nothing can be more terrifying to parents than a first, unprovoked (afebrile) seizure with no prior warning. Many families are given little information by emergency departments and are quite frightened by the term "epilepsy" they read about on the internet or in books. This presentation will describe the common tests recommended by international societies of child neurologists, including EEG and MRI, and when these are necessary to obtain. There are several important epilepsy syndromes that can be screened for in advance by pediatricians with a good history, even before an EEG is obtained. The statistics of recurrence risk can be useful for families, as well as information about basic first aid that they can provide should another seizure occur. Also discussed will be the anticonvulsants that are typically prescribed should a second seizure occur.

OP45. Clinical pattern –diagnosis- and care given for institutionalized Autistic Sudanese children

Prof. Huda Haroon

Introduction: First description of autism was raised by kanner (1943) when he described group of children shared a common impairment, with particular communication abnormalities and

unusual behaviors. A year later sAperger described similar abnormalities in 4 children they differ from previous group in that, they have linguistic difficulties and they have normal IQ. In 1980 American psychiatric published (Diagnostic and statistical manual DSM III) and put the diagnostic criteria and classified as unique disorder called (Autism) refer to Greek word mean alone . Children with autism disorders represents subgroup of big group of children with special needs. There is no previous study about it in Sudan

Definitions:

Autism: Autism is syndrome that emerges in the first 3 years of life and is defined by a pattern of qualitative abnormalities in .Reciprocal social interaction, verbal and nonverbal communication and stereotyped repetitive interest and behavior.

Autism spectrum disorders: It is umbrella of autism spectrum disorders that includes: autism, spergers syndrome and pervasive developmental disorder not otherwise specified (PDDNOS).

General objective: To review the clinical pattern, diagnosis, treatment and care given for Sudanese instituted autistic children in the period from june2010 to feb2011.

Results, Discussion and Conclusion will be discussion in the presentation.

OP46. Management of traumatic brain injury

Dr. Rob Forsyth

Despite the great insights gained into pathways of secondary insult after traumatic and other forms of acquired brain injury, the clinical promise of neuroprotective therapies has, with rare exceptions, been largely disappointing. A decade into the 21st century intensive care unit (ICU) paradigms for the management of traumatic brain injury are little changed from twenty years ago. The maintenance of cerebral perfusion by optimisation of arterial pressure and, where possible, control of intracranial pressure (ICP) remains paramount. Old questions therefore have renewed importance. What factor(s) determine development of raised ICP? Can we predict this? What is the evidence in children that reduced CPP predicts poor outcome? What are target ICP and cerebral perfusion pressures in children? Are they age dependent and which should we target? Should we be monitoring ICP and if so, how? Why does current practice vary so widely? What are the medical and surgical options for treatment of raised ICP and what are the challenges to improving the evidence base for these issues?

OP47. Improving recovery after brain injury

Dr. Rob Forsyth

Despite the great insights gained into pathways of secondary insult after traumatic and other forms of acquired brain injury, the clinical promise of neuroprotective therapies has, with rare exceptions, been largely disappointing. This has given renewed urgency to the task of understanding the biology of recovery after injury. We will review recent advances in rehabilitation

OP48. Challenges in the Epilepsy Care in Resource-poor Countries: GECP as an example

Dr. Haydar El Hadi Babikir

Of the 50 million people with epilepsy worldwide, around 80% reside in resource-poor countries, which are ill-equipped to tackle the enormous medical, social and economic challenges posed by epilepsy. The capability to identify people with epilepsy and provide cost-effective care is compromised by widespread poverty, illiteracy, inefficient and unevenly distributed health-care systems, and social stigma and misconceptions surrounding the disease. The high cost and a lack of availability of antiepileptic drugs, and superstitious and cultural beliefs contribute to a large epilepsy treatment gap. In this presentation an effort of launching an epilepsy care program, the strategy, tactics and approach followed including educating the public about positive features of life with epilepsy, informing primary and secondary physicians about current trends in the management of epilepsies, scaling up routine availability of low-cost antiepileptic drugs will be discussed considering the marked heterogeneity of the disorder and its variable effects on the patient, family and community. The status of epilepsy management in the Globe, Africa and Sudan will be discussed. The results of two years effort will be presented.

OP49. An evidence-based clinical pathway / guideline for the medical management of children with down syndrome

Dr. Haitham El Bashir

FRCPCH, DCH, MD(Lond.),Developmental pediatrician & head of developmental Pediatrics & Children Rehabilitation, Hamad Medical Corporation, Qatar

Down syndrome (DS) is one of the commonest genetic conditions. On average, the prevalence is around 1:1000 live birth. Due to the genetic inheritance, children with DS are at increased risk of multi-system complications that usually increases the complexity of managing those children as they require different professionals and clinicians from different sub-specialties. However, the role of the general pediatrician as the primary physician in organizing the care of those children and drawing a holistic approach in the management cannot be over-emphasized.

The presentation is to showcase clinical pathway/guideline for the medical management of children with Down syndrome using the best available evidence to monitor the progress of those children from 0-14 years of age.

The presentation will benefit the wider pediatric audience but prepared mainly for general pediatricians and those currently in training.

OP50. Hypothermia for Neonates with Hypoxic – Ischemic Encephalopathy. Whole Body Hypothermia Vs Selective Head Cooling

Dr. Ilham Moh. Omer

HIE defined as antenatal encephalopathy due to hypoxic ischemic brain injury. The average incidence of is HIE is 1-2 cases in 1000 births, but in Sudan probably is much higher than this, because it is directly related to antenatal and delivery care. HIE got different levels of severities. Moderate encephalopathy carries a 10 % mortality and a 30% risk of severe disability for survivors. Severe encephalopathy carries a 6% morality with nearly 100% severe neurological morbidity in survivors. Management of HIE is supportive but does not prevent the neurological sequelae or the degree of handicap, it ranges from oxygen supply to mechanical ventilation. Understanding of the pathophysiology of HIE lead to the therapeutic window which is time whereby intervention strategies may be effective in preventing the process of ongoing brain injury. Recent advances in understanding of the ongoing injury following hyoxic –ischemia has facilitated the implementation of neuroprotective strategies which may reduce the neurological morbidity of HIE. Hypothermia is now considered as an important modality of treatment of HIE. Studies have shown that hypoxic – ischemic injury can be reduced by brain cooling. Brain can be cooled by cooling the whole body or the head selectively. Registeries of infants with perinatal encephalopathies should be established to facilitate data collection regarding diagnosis, treatment and outcome. Hypothermia is considered in many centers as the treatment of choice of HIE, although studies are lacking regarding its long term effects. We need to implement it in Sudan.

OP51. Hypothermic Treatment of Hypoxic- Ischaemic Encephalopathy (HIE)

Sami Ahmed, Ryan C. A,

Cork University Maternity Hospital and Department of Child Health and Paediatrics, University College Cork (UCC), Ireland.

Neonatal hypoxic-ischaemic encephalopathy (HIE) continues to be an important problem in perinatal medicine, as well as an important cause of worldwide neonatal mortality and neurodisability. It is directly associated with the development of cerebral palsy and cognitive disabilities later in life. In the past, the management of HIE was largely restricted to supportive care. However, recent and current studies have increased our

understanding the mechanisms of HIE, resulting in novel therapeutic interventions for neuroprotection. Systemic hypothermia is now the standard of care for neonatal HIE in many centres and has led to an increasing chances of survival without disabilities. This abstract will address the practical applications of therapeutic hypothermia in neonatal HIE, including eligibility, contra-indications, methodologies, process including rewarming and potential complications.

OP52. Amplitude-Integrated Electroencephalography: A New Bedside Tool

Dr. Ali El Sanousi
MPCH, DTCH, MRCPCH, FRCP (Edinb), Consultant Neonatologist, Prince Salman Hospital, Riyadh, Saudi Arabia

Bedside Tool: Amplitude-integrated electroencephalography (aEEG) or the cerebral function monitor was invented and used by Mayard in the late 1960s as electrocortical monitor. In the last decade aEEG has become an important bedside monitoring tool to access brain function continuously. The signals from digital machines are displayed on a semilogorithmic scale at slow speed. The methodology, uses and functions of the device are discussed in detail to explain normal and abnormal background tracings. The use in hypoxic-ischaemic encephalopathy is well documented. Other uses are discussed. The experience of Prince Salman' NICU will be presented. Finally, the limitations of aEEG is discussed.

OP53. New guideline in the Neonatal Resuscitation Program (NRP) in Sudan.

Sami Ahmed*, Ryan .CA, Hamid. A***.**
Department of Child Health & Pediatrics, University College Cork, Ireland & Alneelain University,Khartoum, Sudan.***

Background: NRP (Neonatal Resuscitation Program) is an educational program that introduces the concepts and basic skills of neonatal resuscitation. Completion of the program does not imply competence and each hospital or centre should be responsible for determining the level of competence and qualifications required for someone to assume clinical responsibility for neonatal resuscitation. NRP is a well-established course and used as a model all over the world to train medical and paramedical personnel who are responsible for the delivery and care of the neonate. The programme was established in 1985, with a joint effort between the American Heart association and American Academy of Pediatrics, by the pioneering leaders, Dr.George Peckham & Dr.Leon Chameides. The programme was introduced to Sudan in 2002, teaching more than 550 providers and 150 instructors from all over the country. The new guidelines came with the new 6th Edition in 2011 & developed from the scientific research, case studies and reports to all the medical personnel involve in the newborn resuscitation and to be introduced to the provider and instructor courses replacing the old guidelines.

Objectives of the new guidelines: Identify 2010 NRP guidelines changes and education materials. Discuss the 2012-2013 NRP instructor requirements and provider course components. Preparations, team coordination, close loop communication with NRP guidelines. Learning effective Debriefing skills following simulation.

Conclusion: The NRP with the new guidelines is now becoming a recognized part of postgraduate training for Paediatricians as well as for the midwives in Sudan. It is recognized by the Government of Health Authorities, in addition to other Paediatric Academic bodies in Sudan. Wider dissemination of the NRP will have a positive impact on infant mortality in Sudan in the present and future time.

OP54. Epidemiology of Neural Tube Defects at Security Forces Hospital, Riyadh, Saudi Arabia (1996–2009)

Dr. Mohammed Zain Seidahmed
FRCP FRCPCH

Objective: A retrospective data analysis to find the incidence of Neural Tube Defects (NTDs) at Security Forces Hospital, Riyadh, Saudi Arabia and compare our data with local and international data. Also to highlight the important role of folic acid supplementation and flour fortification with folic acid in reducing and preventing NTDs.

Method: Retrospective study of data retrieved from the medical records of newborn infants admitted to the neonatal intensive care unit (NICU) with NTDs spanning 14 years period 1996-2009.

Results: The incidence of NTDs during the period was 12 per 10000 livebirths. The prefortification of flour with folic acid incidence was 14.6 per 10000 livebirths compared to postfortification incidence of 10.4, statistically not significant (P-value 0.103). Mean maternal age for myelomeningocele, anencephaly and encephalocele was 28, 32 and 27 years respectively (P-value 0.162 using analysis of variance). Female to male ratio for myelomengingocele, anencephaly and encephalocele was 1:1, 1.5:1 and 2.2:1 respectively. P-value not significant (0.513 using chi-square test). Regarding site of NTDs the commonest site was lumbosacral (43%), followed by lumbar (26%), dorsolumbar (19%), sacral (9%), 85% of our NTDs were diagnosed antenatally.

Conclusion: The incidence of NTDs at the Security Forces Hospital, Riyadh, the main hospital for employees of Ministry of Interior all over Saudi Arabia, was found to be 12 per 10000 livebirths nearly similar to the incidence reported from the Eastern province, Western province (Jeddah), Al Medina: but higher than two reports from Southwest (Asir) region. The prefortification incidence in our study was 14.6 per 10 000 livebirth and postfortification incidence was 10.4 per 10000 livebirths but the reduction (28%) was not statistically significant (P-value 0.1030). Syndromic and chromosomal defects constituted 14% of total NTDs, unpreventable. Although folic acid fortification of flour was mandated in KSA in 2001, still the incidence of NTDs is high compared to USA and Western countries. As the first prenatal visit commonly occurs after closure of the neural tube in the first 4 weeks and less than 10% of women meet the daily requirement of 400 micrograms of folic acid we recommend:Fortification of flour with high amount of folic acid 240 µg per 100 grams flour to compensate for rice which is the staple diet in KSA and difficult to fortify.Women of childbearing age should be supplemented with 500 micrograms (0.5 mg) of folic acid 3 months before conception and to be continued throughout pregnancy. Women with previous history of NTD affected child should be given 5000 micrograms (5 mg) of folic acid 3 months before conception and throughout pregnancy. National campaign to raise awareness about NTDs and the importance of folic acid in prevention, utilizing the media, newspapers, TV, internet, Facebook, Twitter etc. to propagate and increase public awareness about NTDs. Encouraging consumption of foods rich in folic acid, like leafy vegetables legumes, liver.Support Neural Tube Registry (at KFSHRC) and Saudi Spina Bifida Support Group (SSBSG).The incidence of NTD in Omdurman Maternity Hospital (Sudan) is 34.8/10000, the highest in Africa (Ghada ElSheik, Salah Ahmed Ibrahim 2009). The same recommendations can be adopted in Sudan together with mandating folic acid fortification of flour.

OP55. Strategies of Feeding a Preterm Infant

Dr. El Sayed A .A.
Department of Pediatrics, Military Hospital, Al Kharj, K.S.A.

Over the past 20 years, the neonatal mortality rates for preterm infants' particularly extreme preterm babies have decreased steadily. Most of this remarkable improvement has come from specialized techniques (e.g. ventilation, prenatal steroids, surfactant, medications and experience of medical and nursing staff) added to this improvement of nutritional strategies.

The recommendations of the American Academy of Pediatrics: the growth of the postnatal preterm infant should be the same as the normal fetus of the same gestational age growing in the mothers' uterus. Nutritional requirement do not stop at birth thus delaying or insufficient nutrition after birth until the baby is stable will result in a catabolic condition resulting in short-term and long-term growth and development abnormalities. Over feeding will result in obesity, which leads to insulin resistance, glucose intolerance and later type 2 diabetes. Also, it will result in decreasing vascular reactivity leading to cardiovascular diseases later in life. Enteral milk

supply is possible even in extreme preterms and gradual replacement of total parental nutritional with milk feeds as tolerated, should be the aim in order to benefit from its trophic effect (e.g. promotion of intestinal mobility, reduce incidence of sepsis and induction of lactase activity). Oxygen is necessary for all metabolic processes, recent trends to limit oxygen supply to prevent toxicity have potential (especially if Hb is less than 8 gm) to develop growth failure. Glucose should be provided immediately after birth, at 6-8 mg/kg/minute and adjusted accordingly (45 - 120 mg/dl).

Glucose is the major source of energy to the fetus and preterm in early life. Lipids: fat is essential for brain and retinal development. It should be increased gradually to reach 3 gm/kg/day. Protein should be provided in 3-4 gm/kg/day to produce normal protein balance and growth. Breast milk is the best but milk formulas especially preterm formula can be used. Enteral feeding containing at least 50% human mild in the first 14 days of life is associated with six-fold decrease in necrotizing enterocolitis. Gastric residuals are maker of feeding intolerance especially if bloody or bile stained.

OP56. Pulmonary Hypertension in the Neonate

Dr. Mohamed A. Elhussein
MBBS,FRCPCH,MSc (UCL) CST, Consultant Neonatologist, Saad Specialist Hospital, Alkhobar, KSA

Persistent pulmonary hypertensin of the newborn (PPHN), a major clinical problem in the neonatal intensive care unit, can contribute significantly to morbidity and mortality in both term and preterm infants. Hypoxemic respiratory failure or PPHN can place newborns at risk for death, neurologic injury, and other morbidities. PPHN is categorized into parenchymal lung disease (meconium aspiration syndrome, respiratory distress syndrome, sepsis), idiopathic (or "black-lung"), and pulmonary hypoplasia (as seen in congenital diaphragmatic hernia). Treatment involves correction of factors that may promote vasoconstriction, mechanical ventilation to achieve optimal lung volume that may include high-frequency oscillatory ventilation, medical optimization of cardiac output and left ventricular function, and inhaled nitric oxide. A number of alternative and emerging pulmonary vasodilators are being investigated which can be used in absence of proven treatment.

OP57. Prevalence of Pulmonary Hemorrhage in NICU KFH at Albaha–KSA-(Jan 2009—Dec 2010)

Dr. Hamdi Katar Hanafi
Consultant Neonatologist, NICU-KFH Al Baha. KSA

Pulmonary hemorrhage (P-Hem) is an acute, catastrophic event characterized by discharge of bloody fluid from the upper respiratory tract or the endotracheal tube. The incidence of P-Hem is 1 in 1,000 live births. P-Hem is present in 7 to 10% of neonatal autopsies, but up to 80% of autopsies of very preterm infants. Preterm infants contribute a large category in our NICU Patients, P-Hem carries high mortality rate among this group of patients especially extreme preterm babies. So we are going to study the prevalence of P-Hem in our NICU over the last two years and how to improve the outcome and services regarding the prevention & management of P-Hem.

OP58. Effects of Nicu Experiences on Development of Premature Infants

Mawahib S. Wang
Nursing Education Coordinator, Security Forces Hospital Program, KSA

Initial experiences in the NICU have been shown to affect the developmental outcome of premature infants. Moving from the in-uterus environment into the oftentimes hostile surroundings of the NICU can have a negative developmental effect on the infant's brain. This presentation will provide an overview of the principles needed to provide developmentally supportive care. It will highlight the specific practices that will lead to an environment that is conducive to the positive sensory input necessary for normal brain development. We will examine simple measures that a multidisciplinary heath care team along with the infant's family can implement as a successful developmental care program.

OP59. Proper Use of Antibiotics

Dr. Mohammed Alzahrani
Riyadh, Saudi Arabia

(Abstract not submitted)

OP60. Outcome of Haematopoietic Stem Cell Transplantation for Adenosine Deaminase Deficient Severe Combined Immunodeficiency Short title: HCT for ADA SCID

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Introduction & Aims of the Study: Adenosine deaminase (ADA) deficiency is a rare inherited disorder of purine metabolism characterised by the accumulation of metabolic substrates that lead to abnormalities of T, B and NK lymphocyte development and function and a variety of systemic defects. Affected infants characteristically present with severe opportunistic infection, failure to thrive and an immunological profile consistent with severe combined immunodeficiency (ADA-SCID). Without treatment, the condition is fatal usually in the first year of life and therefore necessitates early intervention. A small percentage of patients (~10%) with residual ADA activity present after the first year of life with recurrent viral and bacterial infections and in some cases with inflammatory problems. Unlike other forms of SCID, a number of options are available for the treatment of ADA-SCID namely haematopoietic stem cell transplantation (HCT), enzyme replacement therapy (ERT) with PEG-ADA 12;13 and more recently gene therapy (GT) . HCT has been the treatment of choice for most centres but with other management strategies available, it is essential to gather formal HCT outcome data so that informed choices can be made regarding whether to use transplant or pursue other treatment options. To date, there has been no formal data on the outcome of transplant for ADA-SCID alone.

Methods: Deficiency of the purine salvage enzyme adenosine deaminase leads to severe combined immunodeficiency (ADA-SCID). Outcomes of haematopoietic stem cell transplantation (HCT) for ADA-SCID alone have not been reported. The lack of such information and the availability of alternative treatment options led to this international study so that treatment pathways could be based on robust outcome data. A questionnaire based study of 17 centres collected data on 106 patients who had undergone 119 transplant procedures.

Results: HCT from matched sibling and family donors (MSD, MFD) had significantly improved overall survival (OS) (86% and 81%) in comparison to HCT from matched unrelated (67%; $p<0.05$) and haplo-identical donors (43%; $p<0.0001$). Significantly improved OS was also seen in patients who received unconditioned transplants in comparison to myeloablative procedures (81% vs 54%; $p<0.003$) although in unconditioned haplo-identical donor HCT, non-engraftment was a major problem. Long term immune recovery showed that regardless of transplant type, overall T cell numbers were similar although the rate of T cell recovery was improved following MSD/MFD procedures. Humoral recovery was achieved in nearly all surviving patients (89%) and suggests that even in the absence of donor B cell engraftment; good T cell recovery can promote effective humoral function. These data highlight for the first time the outcomes of HCT for ADA-SCID and show that achieving donor T cell engraftment but with minimal toxicity allows long term cellular and humoral immune recovery.

OP61. Immunization Challenges: "AEFI"

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Vaccines used in national immunization programs are extremely safe and effective. However vaccination programs are complex and there are many potential sites for safety concerns. No vaccine is perfectly safe and it is critical for national immunization programs to have in place strong post-marketing surveillance to detect less common adverse events not recognized in pre-licensure trials and also to check on ongoing safety of the program itself. Vaccines are expected to have a higher standard of safety than drugs. Not every one is fully immune to the common fallacy that suggests that because an event happened after vaccination, it happened because of the vaccination. Systematic monitoring for AEFI(Adverse Effects Following Immunization) , investigation of serious AEFI and their systematic review to determine if there is a causal relationship with the vaccine or vaccination are all critical tools for detecting problems and ensuring confidence in the immunization program.

OP62. Fever and Cerebral Irritation in Children

Prof. Eisa Osman El-Amin, Dr. Mohamed Ibrahim Elbashir, Dr. Osman E. El-Amin

Background: Impairment of consciousness associated with a febrile illness is a common presentation of severely ill children in the tropics. Cerebral malaria (CM), acute bacterial meningitis (ABM) and acute viral encephalitis (AVE) are the three commonest causes, and they have a high mortality and a significant risk of neurological sequelae in survivors. In our hospital practice unconscious febrile patients are often started on artimisinin, acyclovir and a 3rd generation cephalosporin. Clinicians hold to this combination for some days in spite of a negative blood test for malaria parasite and antigen. Our general goals were to describe the spectrum of disease in patients presented with fever and cerebral irritation, definable by history, examination and routine laboratory investigations and to examine the implications of these findings for the management of children presenting with impairment of consciousness in malaria endemic areas.

Patients and methods:

- This study aims at rigorous diagnosis of severe malaria by using the WHO case definition for initial enrollment of cases and following that by excluding the non malaria cases clinically and by testing for the parasite and its antigens.
- To presume the diagnosis of bacterial meningitis using CSF study including culture.
- To confirm infection by herpes virus using blood with IgG and IgM serology and CSF study.
- To compare the accuracy of the three provisional diseases entities (CM, ABM, AVE) which represent the most common causes of fever and cerebral irritation with the final diagnosis.

Study was conducted at National Ribat hospital (NRH), Omdurman pediateric Hospital (Om.O.H) and Jaafar Ibn Oaf hospital (JIOH). Prospectively collected clinical and laboratory data on all children over 1 month of age, admitted with fever and non-traumatic impairment of consciousness between April and August 2011 were studied. Impaired consciousnessis defined as a Blantyre score [30] of <5 in children aged 8 months or over, or a Blantyre score of <4 in children under 8 months.

Results: Between April & August 2011, 104 children (59 were males and 55 were females) were admitted with fever and non-traumatic impairment of consciousness with age more than 1 month... Forty five of them were infants, and most of them were not vaccinated against Hib (Haemophilus Influenza type b).

Symptoms in the three provisional diseases categories overlap. Disturbed consciousness and convulsion were provisionally linked with meningitis and encephalitis and there was no presentation of bleeding in the skin or mucous membranes.

Impairment of consciousness using Blantyre score (shown in table 18) was common, but neck stiffness was not documented in the suspected meningitis or encephalitis except in 18 patients. Cranial nerve palsy was seen in two patients suspected to have meningitis. There was no skin lesion seen, and herpes labialis was seen in one case suspected to have meningitis. The anterior fontanelle was normal in most patients and tense in 22 out of 81 patients suspected to have meningitis.

The WBC was less than 10 (100/dl) in 29 patients and increased to more than 10 (100/dl) in 61 patients. Most of them were suspected to have meningitis. Anemia of less than 5 gm/dl was seen in 4 patients suspected to have meningitis, but most patients had a hemoglobin more than 10 gm/dl (45/104 patients). Thrombocytopenia was documented in 5 patients of suspected meningitis, and 2 suspected malaria. Hypoglycemia was documented only in 3 patients of suspected meningitis, with no patient with cerebral malaria had hypoglycemia. C-reactive protein (CRP) was positive in 79 patients and 62 of them were suspected to have meningitis.

After confirming the diagnoses according to our study protocol there were four cases of pure cerebral malaria, fifteen cases of bacterial meningitis confirmed by CSF study and blood culture, and one case herpes encephalitis. There were additional 2 cases of malaria as confirmed by Malaria Parasite Slide (MPS) with concomitant bacterial meningitis confirmed by CSF study. Eight cases had CSF leucocytosis but negative CSF and blood culture.

Conclusion: The three disease entities (CM, ABM, AVE) shared most of the clinical findings in the data, indicating that overlap between these three categories. Viral illnesses other than Herpes may occur making the diagnosis of these diseases so difficult without performing CSF analysis and other microbiological investigations.

Malaria was not the commonest cause of non-traumatic impaired consciousness as many clinicians expect. Severe malaria is over-diagnosed by five-folds. This is associated with failure to attend to alternative causes of severe infection; and wasting resources on non-existing disease.

OP63. HIV in Sudan: Mother to child transmission

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Introduction and background: AIDs is a major cause of infant and childhood mortality and morbidity in Africa. Evidence has shown that HIV infection follows a more aggressive coarse among infant and children than among adult. Without access to life saving drugs about one third infants will die about age of 1yr, and 50% by 2yrs. In industrialized countries in North America, Europe, paediatrics HIV has largely been controlled and MTCT rate is less than 2%.But in Africa it is about 30-40% without intervention. Sudan National HIV/AIDS programme has developed national strategic plans to control MTCT on 2007.

Objectives of the study: To see the rate of HIV MTCT in Sudan.To see the effect of ARV prophylaxis and type infant feeding on transmission on Sudan.

Methodology: This is a prospective study done in Omdurman V.C.T centre (OMACU) in the period from 1st of July 2007 till the 3oth of June 2011. Study population all newborns and infant attending the centre during the study period. All informations of the mother and infant and physical examination including anthropometric measures, investigations, drugs and other data were kept in records with regular follow up of infant. At 6 weeks, 3, 6, 18 months and more. Verbal consents was taken from care giver.

Results and discussion: Total number of infants were 151... regarding their origin from Khartoum 7% , from Garadif 7%, and 12% from Kordofan ,the rest from all over Sudan. 43% born in Omdurman maternity Hospital, 65% were delivered vaginally and 35% by CS.76% were given artificial feeding while 15% were given exclusive breastfeeding and rest given mixed feeding. 92% of mothers on ARV and 8% of babies ARV prophylaxis. At age of 6 weeks 29.8% were HIV –ve compared to 89.2% ,93% and 99.2% respectively at 6,12 and 18 months.

Conclusion: so most of our group born of (Omdurman maternity Hospital 43%) 65% were delivered vaginally ,92% of mother

received ARV, 81% of babies given ARV prophylaxis and rate of HIV transmission is 0.8%.

Recommendations: All mothers who visit ANC should be screened for HIV.ARV should be given to both mother and their infants. PCR should be used for HIV testing for infant.

Acknowledgment: We should thank all mothers who participate in the study and all workers in OMACU centre who without their help the study will not be done well.

OP64. Scaling Up Antiretroviral Treatment, a Story of Success, Lesson Learned and Constrain

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Omdurman Hospital HIV/AIDS clinical management center PMTCT experience (OMACU)

Introduction: 38.6 million People were infected with HIV worldwide, nearly two third of them were in sub-Saharan Africa. By the end of 2006 WHO estimated that just over 1.65 million receiving Antiretroviral (ART) in low income and middle income countries, this represent 24% of the estimated 6.5 million people needs the treatment. In North Sudan the prevalence of HIV infection is 0.67%. The mode of transmission is mainly heterosexual 97% (SNAP 2006). In 2011 the estimated number of AIDS population is 135194, of them 3246 children and 18718 adult need treatment (SNAP 2011).

OMACU center was established by Sudan National AIDS Control Program **(SNAP)** in 2002 as an HIV/AIDS clinical management and VCT center. Since that time the center offered care for more than **4530** patients with HIV/AIDS.

Methods and Tools: This was a descriptive hospital based study conducted during the period from 2002 to 2011. The study population was all AIDS patients who sought ARVS and Care service in Omdurman Teaching Hospital ***(OMACU).*** The results of this study were obtained from the OMACU data base that included both the pre ARVS and ARVS registry books and other hospital records

Results: After enrollment of 4630 Patients into HIV care, 1673 (36.1%) started ART. 80% of the adult were in the 21 to 40 years of age. (40.0%) were female. 60% of the adult with World Health Organization stage information were in stage III or IV, while 65% of the children were in stage II or III.

Risk factors are due to risky sexual behavior (43%) and infected sexual partners (30%). More than 95% of the children living with HIV are due to vertical transmission from the infected mothers. 78% of the HIV infected patients presented with a CD4 counts less than 200. 78 clients were received ARVS for post exposure prophylaxis, most of them were medical and paramedical personnel who had needle stick. Two children were sexually abused. At the paediatric clinic 715 children enrolled into HIV care. Of those 178 (24.9) started ART. All ladies on child bearing age were advice not to get pregnant and referred to family planning services. 140 of the patient got pregnant and referred to PMTC Clinic. Fifty four of them delivered by cessation sections, the other 86 by normal vaginal delivery. Of the 151 HIV exposed infants 148 of the babies offered milk formula (irregular supply). Only three HIV exposed infants offered normal breast feeding. 116 children of the HIV exposed infants and children were tested HIV negative while 35 were reactive (< 6 month).

Conclusion: Although the center stand as a successful story of providing comprehensive continuum of HIV care and treatment, the late presentations of patients, non adherence, irregular drugs supply and high defaulter rate remain the main constrains that may result on treatment failure and drug resistance.

OP65. Situation analysis of childhood blindness in Sudan.

Dr. Ahmed Fahmi

Background: There are about 1.4 millions blind children worldwide. Control of childhood blindness is a priority for VISION-2020. There is no available data about the causes of childhood blindness in the Sudan. Data about causes help planning for control of childhood blindness.

Aim: To determine the causes of blindness/SVI among 43 students attending the only two blind school in Sudan and to map eye services available for children.

Method: Data was collected from 43 blind or severely, visually impaired children attending the only two blind schools in Sudan, using a standard WHO form (ERCB). Data was collected from three tertiary hospitals in the capital Khartoum and one ophthalmic unit in Gadarif. Theatre registration records were reviewed to determine the frequency and the different types of surgery done in the year 2006.

Results: The mean age for all the study participants was 11.4 years (CI: 10.6-12.2). 30(70%) of the subjects were males. The overall prevalence of blindness was 35(81.3%), severe visual impairment was 3(7%), visual impairment was 3(7%) and normal was 2(4.7%). Retina/optic nerve lesions were the commonest 12(31.6%) followed by whole globe lesions 9(23.7%). and pathologies where the globe appears normal 8(21.1%). The lens causes were seen in 7(18.4%) cases. The commonest aetiology was the hereditary factors 12(31.6%) but the specific mode of inheritance couldn't be determined in any of them. The aetiology was unknown in the majority of cases 23 (60.5%). This idiopathic proportion (60.5%) was broken as follows: uncorrected high refractive errors leading to amblyopia 17(44.7%), cataract 4(10.5%), and glaucoma 2(5.3%). Trauma was the only childhood factor, it was encountered in 3(12.5%) of cases. There were no cases attributed to measles. The commonest preventable causes was amblyopia 8(21.1%) followed by trauma 3(7.9%), the commonest treatable cause was cataract 7(18.4%) followed by glaucoma 4(10.5%). There is a defect at the primary level of services. Provision of surgery for children is poor in Gadarif. A lot and diverse types of surgeries are done in Khartoum to cover the need of the majority of state.

Conclusion: more comprehensive, high quality eye care services need to be established to control childhood blindness.

OP66. Cytogenetic Analysis of Sudanese Children with dysmorphic features

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Since 1956, when Tijo and Levan indicated the correct number of the human chromosomes, cytogenetic has grown and became an extremely important tool for clinical diagnosis, classification, treatment, and prognosis of the genetic diseases especially those associated with constitutional chromosomal changes. However, the clinical use of cytogenetic analysis in clinical prospective was recently introduced as part of clinical practice in Sudan. In the present report we describe cytogenetic findings in Sudanese children referred for chromosomal analysis due to dysmorphic features to Elite Centre, Khartoum-Sudan during the period 2007-2011.

OP67. Do we need clinical guidelines, protocols or care pathways? Yes, we do

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With the increasing demand for evidence based practice, the use of clinical guidelines, protocols or care pathways is becoming more and more imperative for practicing clinicians. The main aim of developing guidelines, protocols or care pathways is to encourage the use of the best available evidence, reduce variability in practice among clinicians and to promote multidisciplinary involvement not only for physicians but nurses and allied health practitioners working with the child. However, the process of developing evidence-based guidelines, protocols or care pathways can be cumbersome and time consuming as it requires knowledge and practice. The aims of this presentation are: 1. to define guidelines, protocols or care pathways and elaborate on the differences between each one of them. 2. To guide the audience into the approach and the process of developing guidelines, protocols or care pathways. By the end of the presentation, the audience should be able to use the knowledge they

have gained to develop guidelines, protocols or care pathways for their clinical practice.

OP68. Primary Health Care Services

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In the developing counties in general and Sudan in particular primary health care (PHC) should play a great role in prevention and tackling minor medical issues. Also it allows accountability and could include different existing programmes like CDD.IMCI,ARI,shistosoma and TB control together this paper discusses the essential elements of primary health care which include: mother and child health(MCH) sanitation(environmental), control of communicable diseases, referral system, management and follow up of chronic illness like hypertension and diabetes, community participation, provision of essential drugs and finally health education. The rationale for PHC in Sudan are many eg this country is vast and wide where hospitals could not exist everywhere, catchment area definition will help good planning according to no. of population, since catchment area allow us to know total no. of population this could easily allow calculation of the vaccination coverage rate, determining birth and mortality rate so that national indicator like Sudanese infant mortality rate or covering rate for BCG fore example exist. Also PHC will lead to equal distribution of the services since it has unifying system and will reduce the load and pressure to hospitals. Finally having many medical schools with different objectives as well as medical staff from different nationality make quality assurance in PHC our urgent choice. And last but not the least PHC by updating population census(adding new born, new comer to certain villages and removing deaths and those who leave the catchment area) will give accurate estimation of the budget allocated.

OP69. Well Child Services Structure, Staff, Premises and Activities

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A Well baby clinic is the central part of the delivery system for child health surveillance.It is a service center, with emphasis on physical, mental hygiene and prophylaxis, where mothers are seen with their young, healthy infants and helped to understand and manage the infant's unfolding maturation and development.The three major elements of child health promotion program include screening, health education and immunization.The presentation will focus on the structure of well-baby clinic including staff, premises and activities. Also, activities of the maintenance and supervision visits for children less than five years will be presented. This will emphasize on the medical problems which is supposed to be checked off by the Paediatrician during the well-baby examination. In addition, the discussion will highlight the anticipatory guidance and health education information which should be conveyed to parents to assist them in facilitating optimal wellbeing of their children.Case scenarios will present healthy children who visited the well-baby clinic for routine check-up and vaccination, and shown to have significant medical problems which could be discovered earlier with careful screening and focused clinical examination.

OP70.A Sudanese female doctors in pediatrics

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Background: There has been a substantial increase in number of female medical students all over the world, including Sudan. Currently over 60% of medical students in UK and more than 50% in US are females. The specialty of Pediatrics has experienced a steady increase in the number of females entering the field, in 2002, females comprising nearly 70% of pediatrician in training and 50% of all practicing pediatrician in US, but they continued to represent small percentage at academic medicine and leadership position. They represent less than 30% of consultant and only 11% of professor in academic medicine in UK. Sudanese female doctors like women worldwide seems to have same pattern and difficulties.

Objectives: Is to study the current status of female pediatrician in Sudan, and how much they achieve and progress.

Methodology: The data was collected from University of Khartoum (U of K), Graduate Collage- Medical and Health Board, University of Khartoum, Sudan medical council (SMC) and Sudan Medical Specialization Board (SMSB). A total of 146 designed questionnaires were distributed by hand and e mail to pediatrician in Sudan, 95 of them were received by hand, all were from pediatrician in Khartoum State. Data were analyzed using Statistical Package for Social Science (SPSS) version 15.

Results: The first Sudanese medical school was established in 1924, in 1952 the first two Sudanese females graduated, since that time the number of females has increased steadily. All through 1970s the proportion was 15%, rising to 35% by 1985, in late 1990s the proportion was around 50%, but since then increased each year and now reaching 70%. Female doctors represent 60% and 70% of pediatrician graduated by obtaining Clinical MD from U of K and SMSB respectively. They represent over 47% of pediatricians registered at SMC. Out of 146, 95 (65.1%) responded, 73(76.8%) females, 22(23.2%) males. Among the entire group 46(48.4%) were university staff members at different universities, of whom 30 (65%) were females, while 16(45%) were males .49(51.6%) were working in Ministry of Health of whom 43(87.7%) were females while (612.3%) were males. Out of 30 females who are staff member at universities 24 (80%) were appointed as assistant professor, 3(12.5%) of them progressed to associate professor, while 4(13, 3%) were appointed as associate professor of whom non progressed to professor. Out of 11males who are staff members at universities 11 (68.75%) were appointed as assistant professor, 3(27.27%) of them progressed to associate professor while 4(25%) were appointed as associate professor of whom 3(27.27%) progressed to professor. 17 female (56.6%) and 5 males (27.3%) had no scientific publications. 11 (33.3%), 20 (60.6%) and 23(69.7%) of females are not a member at departmental, college or university committees respectively , while only 2males(12.5%) , 8(50..05) and 9(60.0%) are not a member at departmental, college or university committees respectively. 35.2% 0f university members were given opportunities to travel abroad for training , 23.1% of them were females of whom 92.6% did not go. Regarding those who are working at ministry of health, 42, 3% of them had been asked to move to distant area, 29% of whom were females, 73.5% of them did not go. 34.4% had long breaks during their carrier practice, 32.3% were females of whom 73.9% had difficulties in practice again. Many suggestions has been put forward in order to improve the professional achievements of Sudanese women in pediatrics which will be addressed in this paper.

Conclusion: Sudanese female doctors are increasing in number, now they are the majority, although they are outstanding in undergraduate and MD level, there is evidence that they had difficulties in progression and they are under-represented in administrative post and committees both at the level of academician and general practicing.

OP70.B Patterns of Rheumatological Conditions in Sudanese Children

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(Abstract not submitted)

OP71. Hepatitis B Surface Antigen among Children with Sickle Cell Disease in Some Khartoum State Hospitals

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About 207 children 0-16 years old with sickle cell disease and a control group of 70 children with Hb genotype AA of similar age group were included in this study.The prevalence of hepatitis B surface antigenimia was found to be 3.9% and 4.3% in children with sickle cell disease and the control group respectively. There was no

difference in the prevalence of HBs antigenimia between the two group (P <0.56).

Repeated hospital admission was risk factors for HBV infection (P < 0.007). But other risk factors including blood transfusion, tribal markers, traditional treatment, surgery, circumcision were not associated with HBV infection. There was no association between the socio-cultural factors like parents' education, mother occupation, types of housing and HBV infection. However, fathers occupations (unskilled labourers) was found to be a risk factor forHBV infection (P<0.05).

OP72. Prescribing Medication Errors among Pediatric inpatient in a Paediatric specialized hospital

R. A. Hussein, B. A. I. Attalla

Background: prescribing errors are common in children and preventable; they emerge the need for revising the prescription and optimize them.

Objective: to determine the prevalence of medication errors in a paediatric specialized hospital. Methods: 480 files were randomly selected, check list was filled, and the data was analyzed by (SPSS 13).

Result: 681 orders were found; the prescribing errors were (78%), the highest type of error was incomplete order (63%), the top class of drug in prescribing errors was antibiotics, the use of drug sheet reduced the errors by 20%.

Conclusion: the prevalence of medication prescribing error was too high even with use of drug sheet and revising the prescription is mandatory.

OP73. Congenital hypothyroidism in Sudan (Jan. 2006 – Jan. 2011)

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This is a retrospective, descriptive study on congenital hypothyroidism at the pediatric endocrinology unit at Jaafar Ibn Oaf hospital & a private pediatric endocrinology clinic in Khartoum State. The study included the records of the patients from January 2006 to the end of January 2011. The aim of the study was to detect the age at onset of symptoms, the age at diagnosis, clinical presentation & the etiology of congenital hypothyroidism. The study included 101 patients having congenital hypothyroidism (males 48 & 53 females) from a total of 384 patients with thyroid disease. The most common age at onset of symptoms was less than 2 months (41.6%), followed by 2-5 years (32.7%), while most of the patients were diagnosed after the age of 2 months (86.1%) and only (7.9%) of the patients were diagnosed before the age of 1 month.

Developmental delay was the most common presenting symptom (65.3%), followed by poor growth (50.5%), & constipation (39.6%). On the other hand the most common clinical sign was goiter (39.6%), followed by wide anterior fontanel (19.8%), umbilical hernia (17.8%), and protruded tongue (12.9%).

Conclusion: Dyshormonogenesis was found to be the most common etiology for congenital hypothyroidism (62.4%), followed by thyroid dysgenesis (17.8%), central hypothyroidism (2%), & the diagnosis was unspecified in (17.8%) of primary CH.

OP74. A Cigarette smoking among medical students in (The National Ribat University, January 2011)

Osman E El-Amin & Badr Altamam DafaaAllaa

Background and Objectives: The problem of smoking among medical students is common worldwide, but the pattern and extent of the problem varies from place to place. There is a belief that smoking among medical students in The National Ribat University, Khartoum is on the increase. We think that students do not know all the health risks of smoking and that both peer students and the staff of the faculty can play an important role in anti-smoking campaign.

Settings and Design: This study was prospective and cross-sectional aiming to know the extent of the problem of smoking, its routes and how it can be reduced among medical students.

Subject and Methods: All students in the first and fifth year in the faculty of medicine were asked to fill a questionnaire probing their knowledge and practice of smoking. The questionnaire inquired about the role of their peers and the staff to help them stop smoking.

Results: Two hundred and forty (96%) of the first year students and one hundred and seventy four (94 %) of the fifth year students responded by filling the questionnaires. Around 10 % of all students smoked. Although non-smokers knew much about the problems of smoking, many of the smokers did not .The main influence on students to start smoking was from parents, sibs and friends. Eighty per cent of the smokers are willing to give up and they tried so many times. The study showed that little effort was made by the university staff to help students stop smoking.

Conclusion: Smoking is a real problem among medical students. Most students started smoking in the high secondary schools. There is a need for a big family, community and institutional campaign to contain the problem of smoking.

OP75. Knowledge, attitude and practices of mothers towards early childhood illness

Dr. Aisha M. Abbass

This study was conducted at Dr. Gaafar Ibn Auf Specialized Children's Hospital in Khartoum, during the period 1st of September 2009 to 31st October 2009. It's a descriptive, cross sectional, hospital based study, conducted to determine: knowledge, attitude and practices of mothers towards early childhood illness. Particularly diarrheal diseases and acute respiratory tract infections in children under five years, with purpose of identifying factors contributing to mother's use of traditional treatments as an alternative of available health care facilities. The study targeted mothers of 126 children under five years of age admitted to short stay wards.

Results: 67.5% of mothers were aware that their children who were admitted to the hospital were ill. 28.6% of mothers related the present condition of their children to teething, change in weather or cold water in 24.6% and about 10% to evil spirits and eyes and magic. Less commonly, this was said to be due to contact with an ill patient, allergy to certain food, smoke, dust and some considered it as an inherited diseases. 62.7% of mothers used home remedies during child illness, 58.7% of mothers didn't use any methods of traditional treatment, while 41.3% tended to use more than one method. The reason for using home remedies or traditional treatment was primarily due to previous successful experience in 44.4%, or it has been considered as traditions and customs in 39.8% of mothers included in the study, however 8.3% of mothers gave the reason of lack of confidence in medical treatment and avoidance of drugs over use, 5.6% mothers thought that distance between their homes and the nearest health center or hospital was an obstacle while 1.9% it was due to unaffordability and financial reasons.

Conclusion: This study clearly shows features strongly related to the socioeconomic factors, ignorance and more seriously lake of knowledge regarding health information about child health and care which have negative impacts on child health and care in Sudan. It also identifies deficiencies in child health programs including the poor routine immunization, a deficient nutrition program and certainly lack of health education which is apparently non-existent in this country.

OP76. Challenges in Pediatric Renal Transplantation

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Renal Transplantation remains the treatment of choice for children with End Stage Renal Disease (ESRD). When compared to dialysis, it provides better quality of life for the patients and families with overall improvement of renal function. However, many challenges are faced when managing these children. Some of which, like adults, are related to the immune system recognition of the new grafted kidney and some are unique to children age-group. Post-transplantation infections, specifically viral, are of special concern in

children. Multiple hospitalizations with graft dysfunction, rejections and the risk of Post-Transplant Lymphoproliferative Disorder (PTLD) are attributed to these viral infections. Strategies have been adopted to modify the immunosuppressive regimen to achieve the desired goal of immunosuppression to prevent rejection without tipping the balance to over-suppression resulting in viral infections. The future of any successful renal transplantation program is dependent on adequate patients and donors selection criteria with implementation of updated strategies to meet the new and evolving challenges in Pediatric Renal Transplantation.

OP77. Urinary Tract Infection in Children Management overview

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Urinary tract infection (UTI) is an important clinical problem and one of the most common infections of childhood. It distresses the child, concerns the parents, and may cause renal scarring, hypertension, and may cause permanent kidney damage. Although children with pyelonephritis tend to present with fever, it is often difficult on clinical grounds to distinguish cystitis from pyelonephritis. Up to 7% of girls and 2% of boys will have a symptomatic, culture-confirmed urinary tract infection by six years of age. Urine dipstick analysis is useful for ruling out urinary tract infections in cases with low clinical suspicion. However, urine culture is necessary for diagnosis of urinary tract infections in children if there is high clinical suspicion, cloudy urine, or if urine dipstick testing shows positive leukocyte esterase or nitrite activity. The optimal duration of antibiotic therapy has not been established, but short courses of antibiotic therapies have been shown to be inferior to longer treatment courses.

Until recently, the management of urinary tract infection (UTI) in children has been controversial and based mainly on opinion, but new evidence regarding imaging studies and treatment prompted this review

OP78. Can food allergy be a cause of Nephrotic Syndrome

Dr. Rashid Ellidir

(Abstract not submitted)

OP79. Prevalence and control of Hypertension among children with End-Stage Renal Disease on Hemodialysis

Khalid Awad[1], Ayah Y. Elmaghrabi[1], Safaa A. Medani[2], Mohamed B. Abdelraheem[3]
Department of Pediatrics, University of Medical Sciences and Technology, Khartoum-Sudan1, Rena Unit, Gaafar Ibn Auf Children Hospital, Khartoum-Sudan2, Pediatric Nephrology Unit, Soba University Hospital, Khartoum-Sudan3

Background: Hypertension is one of the most common sequels of chronic kidney disease (CKD) in children; it develops by a large variety of pathophysiological mechanisms. On the other hand, blood pressure is one of the most critical determinants of the progression rate of renal failure in children.

Objectives: This study was conducted to assess the prevalence and control of hypertension among children with End-Stage Renal Disease (ESRD) and to determine the underlying causes of ESRD among the patients.

Methodology: This is an observational descriptive cross-sectional hospital-based study of all Khartoum pediatric (aged < 18 yr, n= 61) long-term hemodialysis patients in the 2 main Children's Renal Units in Khartoum. Hypertension was defined as systolic or diastolic BP above the 95th percentile for age, height and gender. Variables were age, gender, blood pressure status, use of medication, ESRD duration, body mass index percentile, primary cause of ESRD, and family history of hypertension and renal disease Analysis was done using SPSS version 16 and Chi-square was used to test relationships between variables, with a significant P-value set at ≤ 0.05.

Results: Hypertension was present in 59% of patients (n= 61); 54.1% used antihypertensive medication. Hypertension was uncontrolled in 42.4% of treated patients. 93.9% of patients on treatment used calcium channel blockers. 67.2% of the patients were underweight. There was a strong association between cause of ESRD and the presence and control hypertension (p-value = 0.006)

Conclusion: In our patient's population of children with ESRD on hemodialysis, hypertension was found to be common (59%), and uncontrolled in 42.4% of the treated patients. There was a significant association between the cause of ESRD and the presence and control of hypertension. It is concluded that a more aggressive approach to treatment of hypertension is warranted in pediatric long-term hemodialysis patients

OP80. Pattern of Renal Injury in HIV-Infected Children in Omdurman Management & Care Unit-Sudan

Alddai Mohammed Ahmed Alnair[1], Mohamed Babikir Abdelraheem[2], Nour Elhouda Ata Allah[3]
Department of Paediatrics, Faculty of Medicine -University of Kordofan[1], Soba University Hospital - University of Khartoum[2], Department of Paediatrics, Faculty of Medicine - University of Joba[3]

Introduction: HIV-related renal diseases are increasingly prevalent and are associated with proteinuria and rapid progression to end-stage renal failure. A variety of renal abnormalities among HIV-infected patients have been described and definitively diagnosed only by kidney biopsy. Early treatment with highly active antiretroviral therapy (HAART) and ACE inhibition may prevent the development of chronic kidney disease (CKD). The aim of this study is to determine the pattern of renal injury and prevalence of proteinuria in paediatric HIV infected children and evaluate the relation between the degree of renal impairment and CD4 count.

Study design: This is a cross-sectional descriptive hospital based study; Data was collected from 62 HIV infected children from the beginning of October 2010 to the mid of January 2011. Data about their age, sex, residence, duration of the HIV infection, measurement of blood pressure, and immunological classification according to the last CD4 count obtained within the last 6 months. Urinary protein/creatinine ratio was done to determine the degree of proteinuria which detected by urine dipstick. For those who tested positive for proteinuria or haematuria; blood urea level and serum creatinine was done. Renal biopsy for histopathology was done for those with nephrotic range proteinuria or abnormal renal function. Sixty healthy children who came for follow up to the referred clinic represent the control group.

Results: Thirty-nine were males (62.9%), male to female ratio 1.69: 1, and the mean of age was 7.9 years $\pm$ 3.7 (SD). In 91.9% the duration of HIV infection was < 5 years. Patients with clinical stage 3 were 39 (62.9%). In immunological staging 37 HIV infected children (59.7%) had advanced to severe immunosuppression. Proteinuria was detected in 17 (27.4%) HIV infected children among them 7 (41.2%) had nephrotic range proteinuria. The calculated GFR in 3 patients (17.6%) was stage 3 and none had stage 4 or 5. All children had normal blood urea level but only one patient (1.6%) had high serum creatinine.Renal biopsy was performed in three patients, two of them showed Mesangioproliferative glomerulonephritis and one was collapsing variant of focal segmental glomerulosclerosis.

Conclusions:
Proteinuria; an early marker of renal diseases, is prevalent among HIV- infected children in Sudan. It is more common among children with advanced clinical or immunological HIV disease.

OP81. Is Renal Disease in Children A Silent Illness; A Study of Urinanalysis in 3 Primary Schools

Ahmed Abdelrahim Khalil[1], Sawsan M. Saeed[2]
University of Medical Sciences & Technology[1], University Charity Teaching Hospital, Khartoum[2]

Introduction: Chronic kidney disease (CKD) is an immense and growing problem worldwide. Proteinuria and other urinary abnormalities have been found to increase the risk of renal disease. The most common etiology of chronic renal failure in Sudanese

children is chronic glomerulonephritis. Urinalysis has been shown to be useful in early detection of primary renal diseases such as chronic glomerulonephritis which usually manifests early as asymptomatic proteinuria and/or hematuria. This study was done to establish whether the prevalence of hematuria and proteinuria and the prevalence of primary renal disease in apparently healthy individuals are high enough in the school-aged population of Khartoum city to consider mass screening of children.

Methods: 300 apparently healthy children from 3 primary schools around Khartoum city were evaluated using urine dipstick analysis for hematuria and proteinuria, and further tests of renal function to find the prevalence of asymptomatic urinary abnormalities as well as the spectrum of diagnoses in the study sample.

Results: 16.3% of the study sample tested positive for hematuria and 19.7% for proteinuria. About half of these abnormalities persisted on repetition of the tests. The main diagnoses found were urinary tract infection (12%) and hypercalciuria (8%) for hematuria and orthostatic proteinuria (20%) for proteinuria. No diagnosis could be made in 20% of cases in both groups. 5 subjects (1.7% of the sample) showed evidence of abnormal renal function.

Conclusion: The majority of apparently healthy school aged children with abnormalities on urinalysis have benign causes but there is a 1.7% prevalence of renal impairment in this population

OP82. The Pediatric Echocardiogram: What Should Pediatricians Know

Prof. Abdelmoneim Elseed
MB, FRCP, FRCPCH, Faculty of Medicine, Khartoum University

Echocardiography is well established as an important imaging modality. Major management decisions such as cardiac surgery, catheter intervention or cardiac medications may depend on echo findings. Pediatricians should know the various indications for an echocardiogram & most importantly they should exchange all necessary information with cardiologists. The echo request should contain pertinent data, reasons for ordering the study& questions that need to be answered. Cardiologists should write back an adequate report detailing out the structural, functional & hemodynamic findings. The report should be easy to read, serve as a teaching tool & should use the segmental approach to describe the findings. Hemodynamic & cardiovascular measurements, cardiac function as well as any relevant negative findings should be included. A record of the study (hard copy or electronic recording) should be attached. Plans for treatment &further follow up studies should be outlined.

OP83. Primary Rhythm Disorders in Sudanese Children

Dr. Sulafa K. M. Ali
University of Khartoum, Faculty of Medicine, Department of Paediatrics and Child Health.

Primary rhythm disorders are important and often life-threatening diseases that need to be identified and treated early.

Patients and Methods:

Results:

In the study period 21 patients with PRD were identified. Male to female ratio was 1.6:1. Age ranges from 0 (antenatal diagnosis) to 12 years. The patients were divided into 3 diagnostic groups: group1 were 7 patients with complete atrioventricular block (AVB), group 2 were 8 patients with supraventricular tachycardia (SVT) and group 3 were 6 patients with ventricular tachycardias (VT). In group 1 the most common time of presentation was soon after birth (71%) with 2 patients identified by antenatal examination. Only one patient presented with severe bradycardia needing emergency pacing. Four patients (57%) had permanent pacemaker insertion (PPM). 3 patients died, 2 of which despite a PPM.

In group 2 the peak age for SVT was 2 month (37%) and 10-12 years (63%). Young infants improve by 12 month of age while older children were using medications (most common are propranolol and flecainide) for > one year and were referred for ablation therapy. Non had life-threatening event or syncope.

In group 3 the most common cause of VT was long QT syndrome which was identified in 3 families. In all patients there was history of syncope and family history of sudden death. One family has long QT syndrome associated with deafness (Jervell and Lang Neilsen syndrome) with 4 members afftected. All patients with long QT syndrome were started on propranolol with improvement of symptoms. One patient has a primary VT which was successfully ablated in Italy.

Conclusion:

We presented the spectrum of PRD in Sudanese children with emphasis on the need for early identification and treatment especially of AVB and long QT syndrome as they can lead to life-threatening events.

OP84. The correlation of clinical & echocardiographic scores with blood "brain natriuretic peptide" in pediatric patients with heart failure.

Mutaz Jamaledeen*, Sulafa KM Ali**
***From University of Ribat, Faculty of Medicine, Department of Paediatrics. ** From University of Khartoum, Faculty of Medicine, Department of Paediatrics and Child Health and Sudan Heart Centre.**

Background: Recently brain natriuretic peptide (BNP) level has been introduced as a screening test for congestive heart failure (CHF) in children. The current CHF assessment scores are not satisfactory as they use a large number of variables.

Objectives: To evaluate two CHF scores: a modified clinical score and an echocardiographic score and to compare them with BNP level in paediatric patients with CHF.

Design: The study was prospective, hospital based study.

Settings: The study was carried at 2 paediatric cardiac referral centres in Khartoum from April to July 2010.

Subjects and Methods: All patients 1 month to 18 years of age with the clinical diagnosis of CHF were included. A clinical score was designed that consists of heart rate, respiratory rate, liver size and degree of growth failure in younger children (1 month - 2 years). For older children (>2-18 years), growth failure was replaced with exercise intolerance. Echocardiographic (echo) scores were designed according to the type of cardiac disease. BNP level was measured in all patients.

Results: Sixty seven patients were enrolled, 39 (58%) had congenital heart disease (CHD), 27 (32%) had rheumatic heart disease (RHD), and 7 (10%) had dilated cardiomyopathy (DCM).Twenty four younger children (88%) and 29 older children (85%) have a high clinical score (severe CHF). Twenty one out of 23younger children with high echo score (91%) had a high clinical score as well (p value 0.001). In patients with RHD (all with a high clinical score), 81 % had a high echo score. (p value 0.001). All younger children with a high clinical score (n=24) had a high level of BNP (p value 0.00).
In older children with a high clinical score 28 out of 29 (96%) had a high BNP level. (p value 0.00). Of patients with RHD and a high echo score (21), 16 (76.2%) patients had high BNP level and 5 (23.8%) had low level of BNP. All patients with DCM had high echo score and all of them had high levels of BNP (100%). (p value.0.00).

Conclusion: We tested clinical and echo scores and proved their value in assessment of CHF in children. The scores correlated well with BNP level. We recommend the use of these scores as well as BNP level in clinical practice.

OP85. Short-term Outcome of Different Treatment Modalities of Patent Ductus Arteriosus in Preterm Infants.

Nuha Nimeri , Hussam Salama

Background: The incidence of PDA in preterm infants is increasing due to the improved survival rate of infants born with extremely low birth weight. Similarly, incidence is inversely proportionate to gestational age; in preterm infant's ≤ 28 weeks, the incidence is as high as 60%.

The debate regarding optimum management of patent Ductus arteriosus in preterm infants has heated up in recent years. The majority of clinicians attempt to close clinically significant PDAs using either Indomethacin or ibuprofen. If the PDA does not close or reopens after pharmaceutical therapy, then surgical closure is

considered by some clinicians .[2] the available clinical trials were unable to establish an obvious relationship between different neonatal morbidities, whether secondary to the hemodynamic changes that occur with left-to-right shunt through the PDA or due to therapies used to close PDA.[3]

Objective: To study the short term outcome of PDA treated with different treatment modalities in preterm infant's ≤ 32 weeks gestation age.

Methods: This study is a descriptive retrospective chart review conducted in NICU Women's Hospital, Hamad Medical Corporation, State of Qatar. The files of all infants born in Woman's Hospital with a gestational age ≤ 32 weeks with a diagnosis of PDA over a five-year period, January 2003 to December 2007 were reviewed.

Results: For the five-year period, 82 cases of PDA were diagnosed in infant's ≤32 week's gestation age. Pharmaceutical intervention was used in 63/82 infants (76%), 20/82 infants (24 %) required surgical ligation after failed medication, while 32 infants (39%) had their PDA closed spontaneously. Medication was successful in only 30/63 (47%). Large PDA significantly increased the mortality, IVH, and ROP (P value 0.002-0.003). PDA size has no protective effect on BPD or NEC (P value 0.54, 0.06 respectively). Infants received medication or surgery experienced no significant difference in all adverse outcomes except for ROP which has P value of 0.003. Preterm infants ≤32 weeks who had spontaneous closure of their PDA experienced lower rate of CLD, ROP, NEC and IVH (P<0.001-0.045).

Conclusion: The results suggest that conservative treatment of P D A is the first choice approach before resorting to medical and surgical treatment.

OP86. Identification of a p.Ser81Arg encoding mutation in SLC2A10 gene of arterial tortuosity syndrome (ATS) patients from 10 Qatari

A. Eltohami, M Faiyaz-Ul-Haquea,b*, SHE Zaidic,d*, A.A. Wahabe* & Etal.

Arterial tortuosity syndrome (ATS; OMIM 208050) is a rare connective tissue disorder characterized by elongation and tortuosity of the greater and systemic arteries.

We report 15 arterial tortuosity patients from 10 apparently unrelated consanguineous families from Qatar. Families 1–8 belong to the previously reported Bedouin tribe in which patients with tortuous arteries were identified as having a new type of Ehlers Danlos syndrome.

Families 9 and 10 are not related to the Bedouin tribe or other previously reported arterial tortuosity patients from Saudi Arabia.

Pedigree analyses indicate autosomal recessive mode of transmission.

Study indicate that arterial tortuosity syndrome is caused by mutations in the SLC2A10 gene at chromosome 20q.

Unaffected carrier parents were heterozygous for this mutation. This mutation was not found in non-carrier individuals without clinical features of ATS.

Identification of this recurrent mutation as well as shared haplotypes in 14 patients in 10 families from Qatar, strongly suggest that the c.243C.G mutation in the Middle Eastern families may have a common origin and shared ancestry. It is likely that other patients of the Bedouin tribe from Qatar and the arterial tortuosity patients of Saudi Arabia may also carry the c.243C.G mutation in SLC2A10 gene.

OP87. Paediatric Allergy

Dr. Amal Abd Elkarim Elnour
Consultant Paediatrician, Calderdale & Huddersfield foundation trust UK.

Allergic disease affects a child's growth, development, educational, social and psychological wellbeing. Allergic diseases constitute the most common causes of chronic illness in developed countries and the incidences are rising in developing countries, it has been proposed there is a worldwide epidemic of allergic diseases which is likely to be a consequence of the changing environment and improved general health, superimposed on a range of genetic susceptibilities, therefore, the treatment of allergy should have high priority in most countries.

There is a need for improving patient care, including better training, there should be specialist care centre in each country that are able to set standards, advance research and organise training(allergy standard of care international survey, allergy dis.immunol int-J world Allergy org 2006;18:4-10). The World Allergy Organization 2004 survey results highlight a pressing need for the development of allergy services worldwide. The aim of my presentation is to raise awareness about allergy, and the importance of diagnosing allergy in children.

In my talk I will explain what is allergy? The pathogenic mechanisms and how we diagnose and treat allergy. I will also talk about food allergy and the most recent NICE guidelines about diagnosis and management of food allergy in children and young people and about cow`s milk protein allergy/intolerance in infant and the recent guidelines for its diagnosis and management. I will talk to you briefly about what is a good allergy clinic? And the service we provide.

OP88. Improved Outcome of survival of patients with Chronic Granulomatous Disease

Amel Hassan, Cathy Cale, Helen Braggins & David Goldblat
Great Ormond Street Hospital & ICH

Introduction & background:

Chronic Glaucomatous Disease (CGD) is a rare primary immune deficiency characterised by defective intracellular killing of bacteria due to defects in one of the four components of nicotinamide adenine dinucleotide phosphate (NADPH). The outcome of patients with CGD has historically been poor. Closer clinical surveillance, prophylactic anti-microbial and anti-fungal therapies and the development of new potent anti-fungal agents in recent years may have altered this.

Patients and Methods:

To test this hypothesis we reviewed case notes of all children diagnosed with CGD in our institution between January 1999 to December 2008 (29 patients). We collected data on age at first presentation, age at diagnosis, presenting features and subsequent clinical course. Those patients who received potentially curative treatment such as bone marrow transplant (BMT) or gene therapy had their follow up ended when they started such treatment.

Results:

Twenty nine patients, 25 males and 4 females, were diagnosed with a total of 170 patient years follow up. 4 children (13%) were diagnosed early in infancy because of family history, 48% were diagnosed before the age of 2 years and 78% were diagnosed before 5 years of age. Twenty one (72%) had X-linked and 8 (27%) had autosomal recessive (AR) CGD.

The commonest presenting feature was pneumonia in 7 (28%), including 3 patients with invasive pulmonary aspergillosis. Five patients were noted to have a wide spread pustular rash at the time of birth and 4 children were reported to have streaks of blood in stool at 2 - 6 weeks of age.

Clinical complications following diagnosis were mainly inflammatory with 18 (62%) developing colitis and17 granulomas (skin 9, gastric 3, urethral 3, one splenic and one with lung granuloma). Fungal infections were seen in 5 patients including two pulmonary aspergillosis. There have been no deaths in this cohort.

Conclusion:

Our study demonstrated 100% survival of children born after 1999 with CGD with primary care at our institution. This is mainly a result of close follow up, regular monitoring and prompt treatment of infections. Regular bacterial and fungal prophylaxis as well as the successful management of invasive fungal disease with newer anti-fungal agents have further improve outcome. This data should be taken into account when the risk-benefit of BMT for CGD is assessed.

OP89. Some Hematological & Biochemical Changes in children with acute sever malaria who present with gastroenteritis in Elobied, western Sudan.

Mohamed Gomaa Mohamed[1], Ahmed A. Aldoor[2], Salah A. Ibrahim[3], Aldaw Beraima[4], Elsadig Elgalabee[5].

Department of pediatrics, faculty of medicine, University of Kordofan[1], Department of pathology faculty of medicine, University of Kordofan[2], Department of pediatrics, faculty of medicine, University of Khartoum[3], Department of microbiology, faculty of medicine, University of kordofan[4], Lab doctor, Elobeid teaching hospital[5].

Despite extensive control programs, malaria continues to devastate Sudanese children. Acute sever malaria, one of malaria serious presentations, causes gastroenteritis as a result of micro vascular changes in the splanchinic blood vessels. In Sudan, no one tried to assess how does sever malaria that presents with gastroenteritis affect body homeostasis.

This cross sectional descriptive hospital based study was carried out to assess some hematological and biochemical changes in Sudanese children with acute sever malaria who present with gastroenteritis. Over an 18- month period (May.2008 – Nov.2009), 198 patients who met the World Health Organization (WHO) criteria for sever malaria, were enrolled in this study. Nearly 60% were males. 73% were children below 5 year. Vomiting and diarrhea were reported in 61.7% and 24.4% respectively. 6.6% of patients who had vomiting and diarrhea were hypoglycemic (blood glucose level<50mg/dl)-*p*=0.001. Blood urea levels of > 50mg/ dl was reported in 7.1% of all patients who had vomiting. While those who had diarrhea were 2.5%. Hemoglobin of less than 9g|dl was reported in nearly 40% of patient who had vomiting and diarrhea. PCV (packed cell volume) of less than 26% was seen in 42% of patient with vomiting and in 31% of those with diarrhea.Leukopenia was registered in 7.1% of patients with gastroenteritis.

It seems clearly from this study that, sever malaria with gastroenteritis significantly affects some hematological and biochemical indices in the body. Therefore, the management of sever malaria needs to be reformed.

OP90. Prevalence of Intestinal Shistosomiasis in New Halfa Scheme, Eastern Sudan

Mudathir Abd ElRahman[1], Yousif Babikir AbuGedeiri, [2] Abd ElAziz Abd ElRahim, [2] Mamoun Magzoub[1], Omer A.O. ElSharief[1], Shams ElFalah Musa [1]*

[1] Kassala University, Kassala, Sudan.[2] University of Khartoum, Khartoum, Sudan. *Correspondence Author: Dr. Shams ElFalah Musa , Faculty of Medicine, University of Kassala,

Background: New Halfa agricultural scheme is considered the second largest agricultural scheme in Sudan after the Gezira irrigation scheme. This study was for highlighting the transmission pressure of Bilharzia in New Halfa agricultural scheme which is an attendant socio-economical health problem.

Method: Out of twenty six residential sites in the scheme, four were randomly selected for the study two villages and two permanent camps and all the school-children in the study area. Comprehensive demographic data were obtained including the names, age group, gender, occupational category, education level, ethnicity, source of drinking water, method of excreta disposal. The sample size for the conduction of sounding epidemiological survey was at least 120 individual in each village plus all school-children (males and females) for the four residential sites. Faecal specimens were collected and examined by modified Kato technique for the determination of the epidemiological parameters influencing schistosomiasis transmission in New Halfa irrigation scheme.

Result: The overall prevalence and intensity of intestinal schistosomiasis among the school- children in the study area was 54.6% and 80.6 eggs per gram respectively. The overall infection parameters of the residence were 41.8% and 79.4 egg per gram respectively.

Conclusion: The infections of intestinal schistosomiasis among the school-children in the study area were higher than residents.

OP91. Pattern and Determinants of Use of Traditional Treatments in Children Attending Gaafar Ibn Oaf Hospital

*** Satti Abdulrahim Satti ,**

**** Sarah Fakhreldin Mohamed Omer.**

Background:

Traditional Medicine comprises medical knowledge systems that have developed over generations within various societies before the era of modern medicine. According to WHO, traditional medicine is defined as:" The health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral-based medicines, spiritual therapies, manual techniques and exercises.

Most often treatments are administered at home by the mother. Traditional healers perform these treatments in the community, which is widely accepted. What is more needed is a national and international body for sound clinical research on traditional medicine. It is necessary to determine what constitutes the best and safe practice, as well as to open up possibilities for new discoveries for health care generally.

The Objective:

Determine the pattern and determinants of traditional treatments in Sudanese children.

Methodology:

100 mothers attending Gaafar Ibn Oaf hospital with their children were selected using convenient sampling in a period of four months. A structured questionnaire was used. Mothers were asked about using traditional treatments for their children, reasons and the outcome.

Results:

Prevalence of using traditional treatments was 70%. The commonest of these treatments was sesame seed oil (77%) and was used mainly to treat flu (37%) plus maintaining health (22.2%). Herbal treatment of hilba, mint and harjal were used by 37%, 17% and 8.6% of mothers respectively. They were believed to be effective by all mothers who used them.

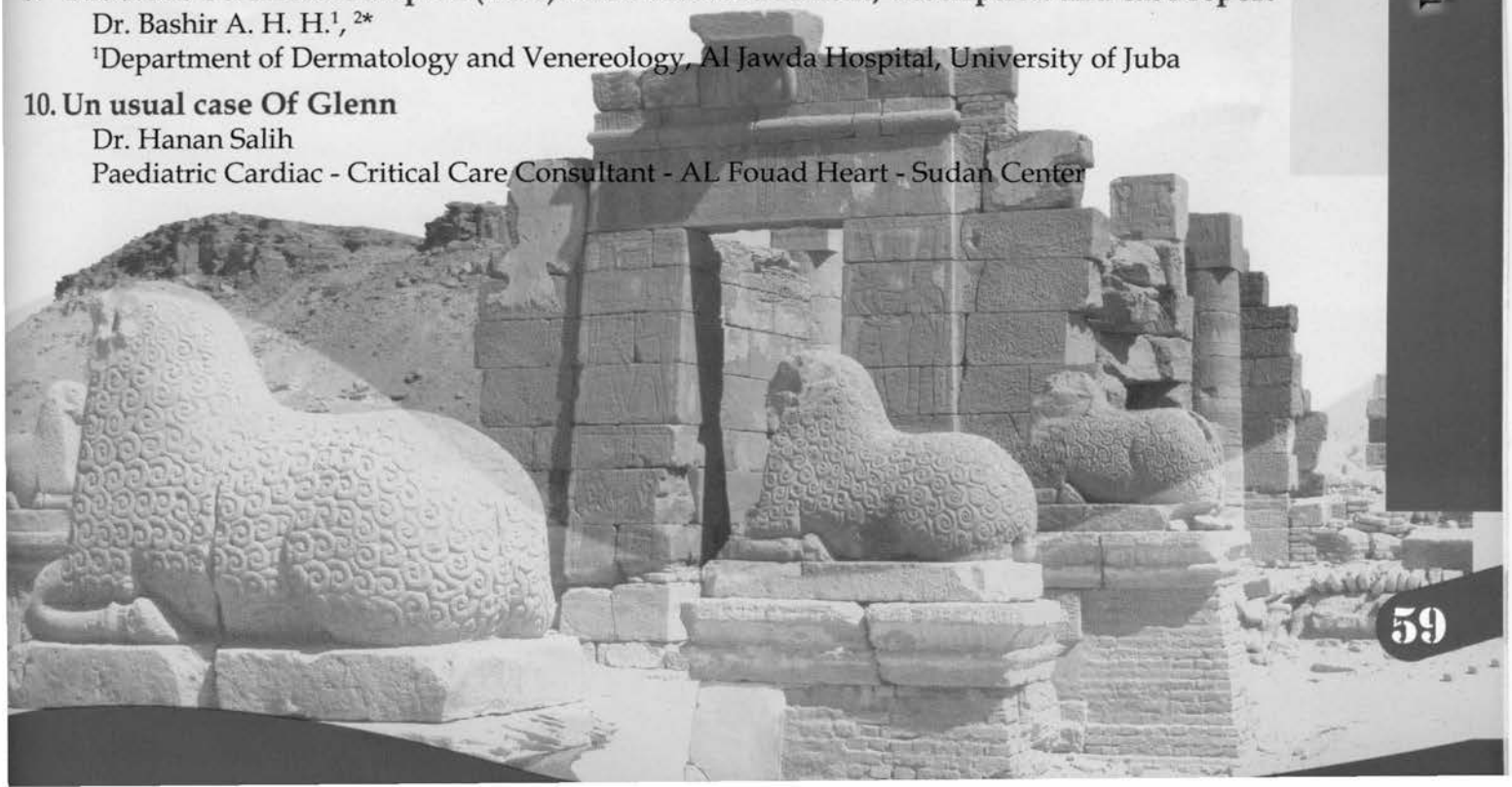
Factors positively associated with use of these traditional treatments were: Illiteracy, elder age group in mothers and also among children treated. Use of traditional treatments was found to be a common cause of delay in presenting a symptomatic child to the hospital in 24% of cases. The average delay in presentation was five days.

Conclusion:

There is a need for medical staff to be able to do health education about traditional treatment. This will encourage parents or caretakers to view modern medicine as an ally of traditional medicine and will ensure, at least, early presentation to hospital. Implementation of health education programs is needed. More research in this field should be encouraged and supported.

Poster Session

1. **Anaemia of Acute Rheumatic Fever (ARF); A Proposed New diagnostic criteria**
   Dr. Eltohami Ahmed
2. **Case Report:**
   An 8-year-old boy with cataract, horseshoe kidney, Obesity and hypertension; is it Bardet-Biedl Syndrome?
   Ayah Y. Elmaghrabi1. Yassir A. Alassad2. Zeinab Y. El-Roubi1
3. **Case Report:**
   Rare Presentation of Acute Myeloid Leukaemia in a Sudanese Child
   Shams ElFalah Musa [1], Mamoun Magzoub [1], Elbashir Gusm Elbari Ahmed [1] & Huda Haroun* [2]
4. **A child with distincting unusual congenital heart disease: Case Report & Review**
   Dr. Eltohami Ahmed
5. **Infantile Colic, Facts and Fiction**
   Dr. Abdelmoneim Elamin. M. Kheir
6. **Neuronal Cortical Migration Disorder Associated with Epilepsy in Sudanese Male Twins: A case report and literature Review**
   Haydar El Hadi Babikir, MD; Mohmmed Salah Magzoub, MD; Anas O. Hamdoun, MD
7. **Cerebral Palsy and the Role of ARRC in Management: An Egyptian Experience**
   Dr. Ahmed Raouf
   Armed Rehabilitation and Rheumatology Center (ARR)
8. **Rett syndrome patient with MECP2 mutation and terminal deletion of chromosome 15q11**
   Imad Fadl-Elmula[1], and Sara Yahya[2]
   [1]Faculty of medical laboratory science, Al Neelain University, Khartoum - Sudan
   [2]Department of Pediatrics, Khartoum teaching hospital, Khartoum, Sudan
9. **Tuberous Sclerosis Complex (TSC) in a Sudanese Patient; description and case report**
   Dr. Bashir A. H. H.[1], [2]*
   [1]Department of Dermatology and Venereology, Al Jawda Hospital, University of Juba
10. **Un usual case Of Glenn**
    Dr. Hanan Salih
    Paediatric Cardiac - Critical Care Consultant - AL Fouad Heart - Sudan Center



General Information

About Sudan:

Sudan Demography & Population:

The Republic of the Sudan is lies on the north-eastern flank of the African continent. Sudan is saddled midway between Africa and the Arab region. The capital is Khartoum. It is bordered by Egypt to the north, Eritrea and Ethiopia to the east, South Sudan to the south, and the Central African Republic to the southwest, Chad to the west, and Libya to the northwest and it overlooks the kingdom of Saudi Arabia across the Red Sea.

The total population of Sudan is 39,154,490 (April 2008) includes the population of South Sudan.

Visas:

Participants are kindly requested to inquire at the Sudan Embassy /Consulate in their country of residence to obtain an entry visa. Upon individual request, a letter of invitation from the organizers to participate in (S.A.P) 17th Congress will be provided to facilitate procedures for obtaining a visa into Sudan. If needed, kindly email your request for your individual invitation letter to info@sudansap.com.

Language of the Congress:

The main language of The Congress is English.

Khartoum Airport:

Khartoum International Airport is located approximately 5 km from the Center of Khartoum.

Currency:

Sudanese Pound (1 SDG = 100 Piaster)
Coins: 10, 20, 50 Piaster
Banknotes: 1, 2, 5, 10, 20, 50 Pounds

Electricity:

Electricity in Khartoum is supplied at 220V AC 50Hz

Time Zone:

Standard Time Zone: UTC/GMT +3 Hours

Banking:

Bank services are available at the Airport & throughout the Khartoum city.
Banks are open from 08:30AM to 12:00 PM from Sunday to Thursday.

Business Hours:

Offices: from 08:00AM to 15:30PM from Sunday to Thursday
Shops: from 08:00AM to 15:30PM & from 17:30PM to 23:00PM

Congress & Exhibition Venue:

The Friendship Hall was established with the cooperation of the people's republic of China in 1973 as one of the most modern conference, exhibition and convention centers in Africa.

The conference hall was built and equipped to the highest international standards and since it opened has been the venue for prestigious international and regional conferences including Sudanese – European dialogues, African union summits, regional agricultural and medical conferences, trade conferences and business events.

The conference hall and seminar rooms are well equipped and supported by secretarial annexes.

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BREAKING NEWS

U.S. Food and Drug Administration

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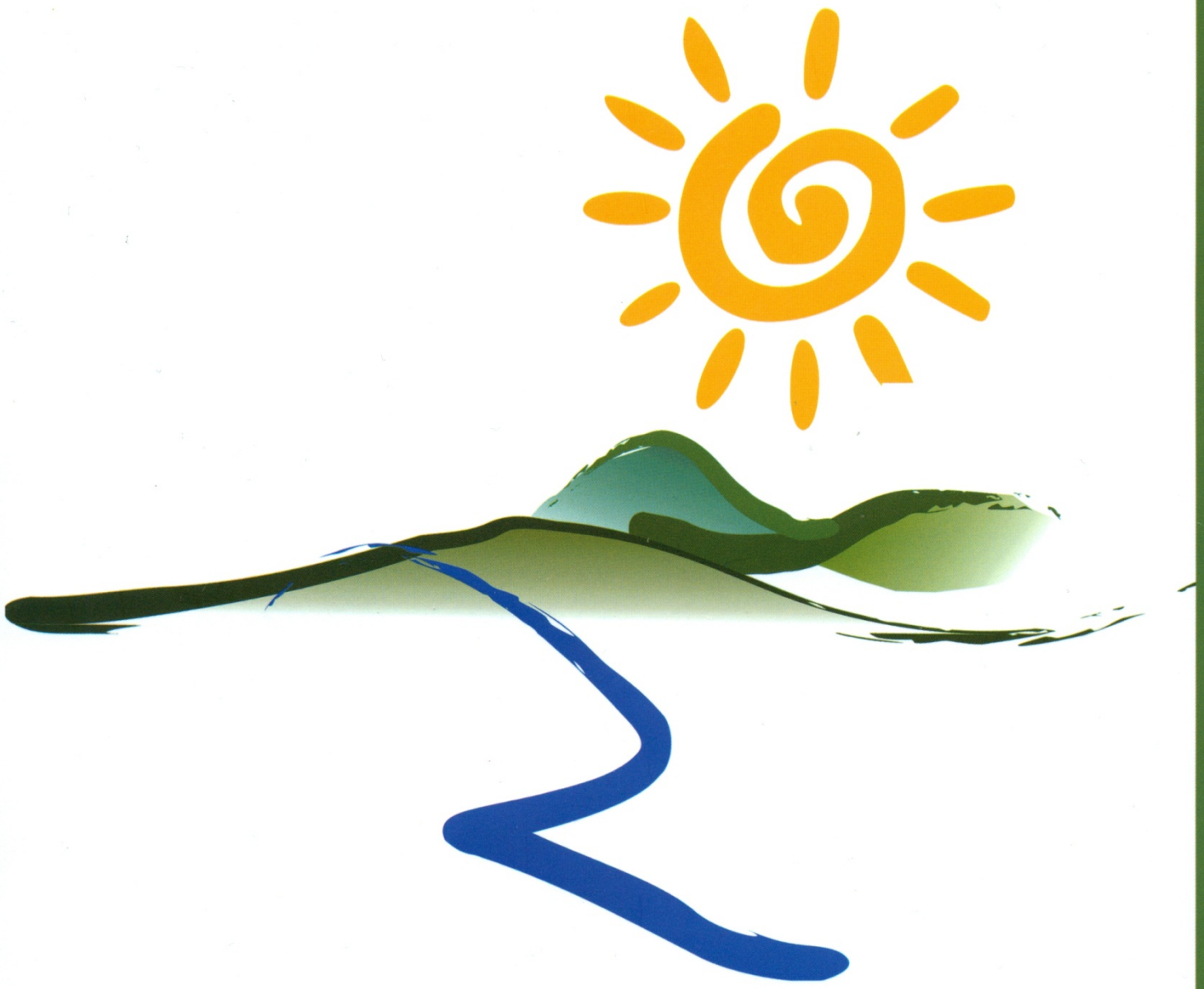

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