EDITORIAL

Medical education and services in an extreme environment

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The current issue of the Sudanese Journal of Paediatrics (SJP) contains scientific contributions by authors from three continents (Africa, Asia and Europe). These include articles on breast feeding and early childhood malnutrition, infectious diseases, inborn errors of metabolism, neurology, oncology, endocrinology and medical ethics. It also includes reflections from Sudan and Thailand on a recently published article on malaria as a risk factor for the development of neural tube defects [1].

A communication which needs to be highlighted in the present Editorial is a hospital-based study on rheumatic heart disease (RHD) [2] which constitutes the commonest cause of cardiac morbidity and mortality in young people in Sudan [3]. Worldwide, RHD affects an estimated 33 million persons, the majority of whom live in low- and middle-income countries [4]. This study [2] showed a high burden and severe nature of RHD in Al Fashir Hospital, North Darfur, where 324 patients were admitted and 3,777 patients with RHD (aged 6–18 years) were seen in outpatient clinics from 2010 to 2016. The study is part of a commendable and pioneering program on the control of rheumatic fever and RHD in Sudan which has been highlighted in the current SJP issue by Professor Sulafa Ali [5], who shouldered with great dedication and enthusiasm this challenging task despite the scarcity of available funds [6,7]. Establishment of the National Committee of RHD Control and Program followed foundation meeting for RHD control in June 2012 at the National Ribat University, attended by representatives of the Sudan Heart Society and Dr. Satti A. Satti, President of the Sudan Association of Paediatricians [8]. Professor Abdelmoneim Elseed, who pioneered paediatric cardiology in Sudan and Saudi Arabia [9,10], gave a speech on RHD and the urgency to have a control program in Sudan. A proposal for RHD control was presented to the Committee by Professor Sulafa Ali. This was based on the African experience of Awareness, Surveillance, Advocacy and Prevention.

Initiating sentinel sites in rural RHD endemic areas, and using handheld echocardiography, the program managed to screen 12,000 subjects in five states revealing a wide disparity in RHD prevalence which ranged between 0.3/1000 in Khartoum and 61/1000 in North Kordofan. The program could also achieve training of health personnel, including medical assistants, physicians and health promoters; and conduct several public awareness campaigns.

The RHD control program was based on charities and voluntary work through a national committee (Sudan RHD Control Committee) liaising with the Federal Ministry of Health [8]. Since there were no allocated funds, the committee had to raise these in collaboration with national and international

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organisations, namely, the Sudan Heart Society, Sudan Association of Paediatricians, Sudanese American Medical Association, Sudan Ministry of Higher Education, North Kordofan Ministry of Health and the World Health Organization Regional Office in Khartoum. The program was also supported by local community charities, including Al Asdigaa "*The Friends*" Charity in Rabak, White Nile State, reflecting the engraved old heritage of the Sudanese to help the needy [11].

The most commendable part of this control program is the involvement of postgraduate fellows in paediatric cardiology, who participated in the activities and provided services in these rural areas and in the extreme environment of the internally displaced refugee camps (Figure 1).

Community orientation of medical education is deeply engraved in the Sudanese colleges of medicine. The Department of Community Medicine of the Faculty of Medicine, University of Khartoum was established in 1951 by the Late Professor Anees Mohamed Ali Alshami who was the first head of the department. As part of its Rural Residency Program, 5th year medical students spend 2 weeks in a health area (rural hospital) and the satellite of primary health care around it. Also in collaboration with the Medical Students' Association, clinical trips are regularly organised to rural areas to set up temporary mobile clinics and conduct primary health care activities including immunisation [12]. One of us (MAMS) still vividly remembers one such trip, which he took during his medical schooling, for duration of more than 3 weeks. This was organised in June 1972 following a treaty that ended a civil war (1955–1972) fighting in the southern region of Sudan (currently, South Sudan). Using Daimler army trucks, and sitting on top of boxes filled with drugs, food and clothes (for distribution), about 100 students and staff from the University of Khartoum Faculties of Medicine and Pharmacy toured Equatoria and Bahr el Ghazal regions in a journey extending for about 1,700 kilometers. The team was led by the Late Dr. Abdelrahman Abdelsalam, then Assistant Professor at the Department of Anesthesia and later becoming the first Director of the Education Development Center, Faculty of Medicine, University of Khartoum. For more than 3 weeks, mobile clinics were set in several

Figure 1 - Dr. Sara El Bushra Ahmed Doumi (right), Fellow in Paediatric Cardiology, using handheld echo device to screen for RHD in Otash Refugee Camp near Nyala, South Darfur.

Figure 2 - Photo in one of the camps of Anyanya (a southern Sudanese separatist rebel army) [13] taken by the Sudan Ministry of Information in June 1972. The International Editor of the Sudanese Journal of Paediatrics (Prof. Mustafa A. Salih, then Medical Student) auscultating the chest of a patient.

villages managing tropical infectious diseases, including leprosy, and providing immunisation against smallpox. One of these mobile clinics, in which one of us (MAMS) has been involved, was in one of the camps of *Anyanya* (a southern Sudanese separatist rebel army) (Figure 2) [13].

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