

PULMONARY HYPERTENSION IN INFANTS AND CHILDREN

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Pulmonary Hypertension which is not associated with central cyanosis can be divided into the following:

1. PRIMARY PULMONARY HYPERTENSION

This is rare especially in infants and young children. It is characterised by the following:

- Syncope and angina prominent
- Tendency to acute heart failure
- Full blown clinical picture of pulmonary hypertension, viz; Right ventricular hypertrophy, loud second sound (P2-)
- X-Ray shows translucency of lung periphery and midzone, great dilatation of main pulmonary arteries, big heart (right ventricular). Fig. 1
- E.C.G. shows grade 3:4 right ventricular hypertrophy.

2. SECONDARY PULMONARY HYPERTENSION:

This includes the following:

(1) Pulmonary hypertension secondary to congenital heart disease (C.H.D.) with left to right shunts.

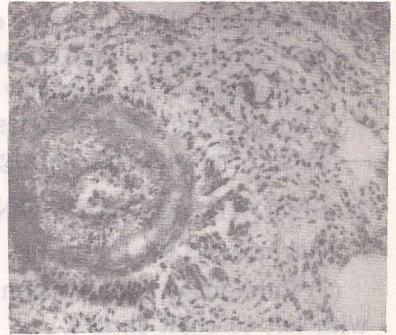
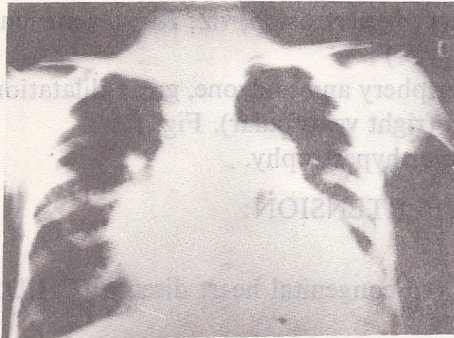
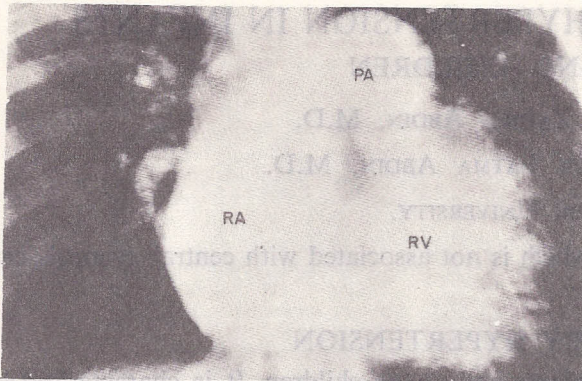
(2) Pulmonary hypertension secondary to increased pulmonary venous pressure in :- Mitral disease, triatrium, Hypoplastic left ventricle, Pulmonary veins stenosis.

(3) Pulmonary hypertension secondary to lung parenchymal disease.

1. *Pulmonary Hypertension Secondary to C.H.D.*

This is characterised by:

- Syncope, angina and acute heart failure, relatively rare, relief is given by the shunt.
- Presence of organic murmurs
- Increase in size of main pulmonary arteries as well as medium size branches in the X-Ray.
- Sometimes evidence of left ventricular hypertrophy together with R.V.H.
- Evidence of shunt as illustrated by cardiac catheterisation.



(2) Pulmonary hypertension secondary to increased pulmonary venous pressure in: - Mitral disease, tricuspid, Hypostatic left ventricle, Pulmonary veins

lung parenchymal disease.
 H.D.
 relatively rare, relief is given by the
 as well as medium size branches
 hypertrophy together with R.V.H.
 catheterisation.

- Tendency to acute heart failure
- Syncope and angina prominent

the following:

This is rare especially in infants and young children. It is characterised by

1. PRIMARY PULMONARY HYPERTENSION

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PULMONARY HYPERTENSION

2. *Pulmonary Hypertension due to increased pulmonary venous pressure:*

This is characterised by:

- Syncope and angina are rare but attacks of cardiac asthma are common.
- Left atrial enlargement in case of hypoplastic left ventricle and mitral disease, also the characteristic murmur in the latter. In these two conditions the wedge pressure reflects the left atrial pressure, in contradistinction to cases with triatrium and pulmonary veins stenosis.

3. *Pulmonary Hypertension Secondary to Lung Disease:*

This may occur in congenital cystic lung, emphysema, bronchiectasis multiple pulmonary emboli and pulmonary endarteritis. In this connection it is perhaps of some interest to refer to an unidentified entity of pulmonary schistosomiasis which we termed pseudoductus and which is often associated with a rise in the pulmonary blood pressure. It is characterised by the occurrence of a basal loud and long systolic murmur accompanied by a thrill often most marked in the second left space. The condition is often associated with rheumatic mitral disease and can easily be confused with P.D.A. (Fig. 2). Histopathological studies have illustrated the thickening and infiltration of the pulmonary capillaries, as well as the occurrence of bilharzial granulomata with bilharzia ova (Fig. 3 & 4).