Correspondence

Lipoprotein macroaggregates in bronchoalveolar lavage fluid from patients with diffuse interstitial lung disease

Sir,—I write to propose some factors which may contribute to the formation of lipoprotein macroaggregates of the type recently described by Dr P L Haslam and others (February 1988;43:140–6).

As Dr Haslam and her colleagues have pointed out, large multilamellar aggregates of lipoprotein may be found in the lungs of patients suffering from interstitial lung disease or idiopathic alveolar lipoproteinosis; in addition, patients with idiopathic alveolar lipoproteinosis may have small lamellar bodies and amorphous debris in their lungs.

I have observed similar aggregates in the distal lung spaces of some human fetuses and neonates. When examined in the transmission electron microscope, the aggregates were seen to have an irregular shape and often occupied corners of the terminal sacculles. Amorphous material, cellular debris, and numerous lamellar bodies (diameter range 1–8 μm) were found within the aggregates. Moreover, the aggregates could be displaced by endobronchial lavage and isolated by centrifugation. The staining reactions suggested that they were composed of lipid and lipoprotein. It is perhaps significant that the lungs containing this material were obtained from anencephalic fetuses that had displayed no intercostal or diaphragmatic activity when studied by ultrasonic scan before birth. In all cases death occurred in the period immediately after delivery as the fetuses were incapable of establishing regular breathing. Electron microscopic investigation also confirmed that the lungs of these fetuses had a well differentiated respiratory epithelium and pulmonary capillary network: indeed, the cytological appearances of the type II epithelial cells indicated that they were capable of secreting pulmonary surfactant.

All of the available evidence suggests that alveolar macroaggregates are composed of relatively insoluble material. A mixture of phospholipid (presumably largely derived from pulmonary surfactant), alveolar exudates, and cell debris could also be expected to be viscous. Consequently, it would be difficult to move this material in a proximal direction towards the terminal bronchioles, where the first part of the ciliary “escalator” is located. Moreover, local macrophages may well have difficulty in phagocytosing large masses of insoluble and viscous material of this type. For all of these reasons, I suggest that the macroaggregates in fetal and adult lungs are essentially similar in composition and that poor drainage and cleansing of the terminal air spaces may be important factors in their formation.

Cowan MEBAN
Department of Anatomy
Queen’s University of Belfast
Belfast BT9 7BL

Anomalous drainage of inferior vena cava to left atrium in association with total anomalous pulmonary venous drainage

Sir,—I remain doubtful of the diagnosis of anomalous drainage of the inferior vena cava to the left atrium in the case report by Mr R K Lamb and associates (November 1987;42:907–8). When all fossa ovalis tissue is absent the atrial septal defect is confluent with the orifice of the inferior vena cava. The eustachian valve of the inferior vena cava then overhangs the atrial septal defect and it can be easily mistaken for septum primum at operation. If such a mistake is made, the inferior vena cava will drain into the left atrium. The authors have failed to show that the inferior vena cava drained to the left of the septum primum before closure of the atrial septal defect.

NS CHAN
Department of Cardiology
Green Lane Hospital
Auckland
New Zealand


*This letter was sent to the authors, who reply below.

Sir,—We are grateful for Dr Chan’s comments about our paper. We accept his criticism but wish to clarify that at reoperation the inferior margin of the tissue excised, referred to as “atrial septum,” was thick and muscularised. This was therefore true atrial septum and not eustachian valve.

RK LAMB
Wessex Cardiothoracic Centre
Southampton General Hospital
Southampton SO9 4XY

SA QURESHI
DI HAMILTON
Royal Liverpool Children’s Hospital
Liverpool L7 7DG

RG PATEL
Royal Manchester Children’s Hospital
Manchester M27 1HA

Thorax 1988;43:503
Anomalous drainage of inferior vena cava to left atrium in association with total anomalous pulmonary venous drainage

NS Chan

Thorax 1988 43: 503
doi: 10.1136/thx.43.6.503-a

Updated information and services can be found at: http://thorax.bmj.com/content/43/6/503.2.citation

Email alerting service

These include:
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/