

longed scanty menstrual loss. Her uterus was the size of an eight-week pregnancy, but pregnancy tests were negative. Within the uterine wall there was a cystic, trabeculated, reddish-grey tumour with an ill-defined capsule.

The second case was in a woman aged 68 years who complained of abdominal pain and had an irregular pelvic tumour which was undergoing torsion. The uterus contained cervical and endometrial polypi, multiple fibroids, one of which had undergone torsion, and a yellowish white lobulated tumour with an ill defined capsule which was situated in the myometrium of the uterine fundus.

Both tumours had similar histological features. They were vascular, and many of the small blood vessels were surrounded by a cuff of collagen. Between the blood vessels the neoplastic cells with their vesicular nuclei were packed together and had a whorled appearance. They lay outside the reticulin sheath of the blood vessels, whose endothelium was normal and were surrounded by reticulin fibres.

These tumours were differentiated from stromal endometriosis, unusually vascular fibroids and leiomyosarcomata, by the inability to demonstrate muscle fibres in the growth or a connexion with the overlying endometrial stroma. The reticulin pattern of the growths conformed with the criteria laid down by Stout and Murray for the diagnosis of haemangiopericytomata.

The patients were well three and a half years after the growths had been removed, which supports the concept that uterine haemangiopericytomata are more benign than when they arise elsewhere in the body. This may be due to the complete removal of the neoplasm when the uterus is taken out.

Significance of Asbestos in Lung Tissue

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In 1964 a working group studied the available information concerning the cancers that were associated with exposure to asbestos dust. Recommendations were made for an international study of the problem by a number of scientific disciplines under the headings of epidemiology, pathology, and dust physics and chemistry. Information was required to ascertain whether a certain type of asbestos was responsible for the development of mesotheliomas of the pleura and peritoneum and carcinomata of the lung; if a parti-

cular type of fibre could be implicated, it might be possible to define the risk of exposure to other types of fibre. After eight years the results of most of these investigations are being correlated. At present it appears that a certain type of fibre is more dangerous than the others. The use of this material has been restricted in Britain.

In this paper I shall present the evidence for incriminating a certain type of fibre.

'Retention Lung' in Infants

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Young children frequently present with consolidating conditions of the lung which are diagnosed as pneumonia and treated with antibiotics.

Histological features are described of the changes found in a particular group of such children in which the consolidation is not inflammatory but due to the inability of the bronchi to eliminate fluid and cell debris.

Factors leading to 'retention lung' include congenital squamous dysplasia of bronchi, the secondary effects of virus infections, and oxygen therapy.

The importance of the condition lies in its recognition both clinically and at necropsy and that treatment lies in physical rather than in antibiotic therapy.

Some Observations on Peripheral Sponge Biopsy of the Lung

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Whilst the diagnosis of bronchogenic carcinoma was relatively easy in conditions within the reach of the bronchoscope, distal lesions were more difficult and in spite of bronchography and sputum cytology there remained a number of peripheral lesions which, although showing an apparently characteristic radiographic appearance, were found on thoracotomy not to be malignant.

The use of sputum cytology was well recognized and was a useful diagnostic weapon but it was time consuming.

Brush or abrasive methods of obtaining material from peripheral lesions had been described by several workers. Methods included the use of radio-opaque catheters, abrasive instruments, and sponges. The latter included acetone-soluble material and also acrylic sponge-capable of being processed in the same way as tissue for paraffin sections.

In this investigation a new design of

acrylic sponge had been used, made of a cylinder cut with a cork borer and annealed to a length of hot 25 SWG Nichrome wire.

After passage under bronchoscopic control the sponge was dropped into fixative, removed from the wire and processed as tissue. Sections, 6 m μ , stained with haematoxylin and eosin, revealed a fine network of sponge, in the interstices of which identifiable cells or scraps of tissue could be seen. Both atypical epithelial cells and frank carcinoma were sometimes found.

In a series of 86 cases, 27 brushes had shown frank carcinoma and 15 atypical epithelial cells. Forty-five patients had so far been followed up in detail. In 13 of the frank carcinoma cases there had been no false positives; in eight showing atypical cells there had been three false positives. In 24 of the negative cases there had been nine false negatives. Forty-one patients still remained to be followed up but the results so far indicated that peripheral bronchial brush biopsy had not only helped to avoid a number of major surgical procedures in patients who had not had carcinoma but had indicated a need for surgery in those who might otherwise not have been operated upon.