

chography and barium swallow may show pressure defects. An infected cyst with a bronchial fistula may show a fluid level. Calcification is not a feature. Bronchoscopy does little more than confirm external bronchial compression, but is a necessary investigation when the diagnosis is in doubt.

Bronchial cysts within the lungs tend to have thin walls and to lie peripherally. They are sometimes discovered on routine chest radiography. They often have a bronchial communication and most of them become infected sooner or later, typically in early adult life. When this happens, the clinical features are those of a lung abscess, with cough, mucopurulent sputum, haemoptysis, and fever; radiographs may show a fluid level. Appropriate antibiotic therapy will lessen the extent of the inflammation but is most unlikely to effect cavity closure. The cysts should be surgically removed, if possible by segmental resection.

While the description of bronchial cysts is comparatively simple, preoperative diagnosis can rarely be made with certainty. In the mediastinum a small radiologically invisible cyst should be suspected, at least in early childhood, when respiratory distress is associated with unilateral pulmonary hyperinflation or collapse. Larger radiologically visible cysts rank rather low in the long list of causes of rounded opacities in that region. Fortunately, the means of differentiating most of them is available; when doubt exists, a thoracotomy is ordinarily indicated. Pulmonary cysts also cause diagnostic difficulties. The possibility that a solitary rounded opacity is malignant cannot always be eliminated. Chronic lung abscesses which do not give positive proof of their identity or respond fully to medical treatment may provide evidence of their bronchial origin only on microscopy after resection.

¹ Schmidt, F. E., and Drapanas, T., *Annals of Thoracic Surgery*, 1972, 14, 650.

Tests of Acupuncture

Scoffing is giving place to astonished incredulity at some of the demonstrations of acupuncture analgesia. How many English patients sip China tea, exchange pleasantries with the bystanders, and then climb off the table unaided after a thoracotomy?

It is as a system of treatment that acupuncture has been developed in China over the past 3,000 years. There are held to be certain points on the body surface where penetrating stimulation or irritation may influence disease in a distant viscus. These points are termed meridian points and they bear no obvious neuroanatomical relationship to a particular viscus. For example, a "gastric meridian" of connected points goes across the right side of the face and neck, perpendicularly down an approximately mid-clavicular line, down the right leg to the second toe. The identification of these points and their relevance to treatment is an esoteric and far-fetched exercise, especially when the diagnostic evidence of disease is so unconvincing. Stimulation comprises the deep insertion of a fine needle, which in the traditional fashion is twirled manually. Electrical stimulation is claimed to be as effective and more convenient, since the process may take 30 minutes or more.

Clearly it is tempting to dismiss the technique along with the intuitive nonsense that formed the basis of mediaeval medicine in Europe. Nevertheless, insistent reports about

the success of, for example, acupuncture analgesia suggest that it deserves more serious study. One recent attempt to identify meridian points electrically in animals has been reported from the Hahnemann Medical College, Philadelphia.¹ The investigators used a galvanometer to identify points of increased skin resistance on the abdominal skin of rabbits, believing them to be meridian points. They identified similar points in the gluteal region and applied a small electrical current (12 V and 200 μ A) for 30 minutes through an acupuncture needle (0.24 mm diameter) inserted 1 cm into a gluteal point. They report not only that the electrical resistance increased at meridian points on the abdomen after vagotomy, but also that acupuncture stimulation post-operatively caused a reduction in this resistance. Their report also suggests that bowel atony was relieved more quickly and mesenteric circulation improved. Unfortunately this study had a number of methodological deficiencies: the observations were not made "blind," the effect of randomly inserted needles was not studied, and the numbers were too few (four groups of six rabbits) and raw data too scanty to allow scientifically valid conclusions.

Doubtless the acupuncturist is as skilled at exploiting the credulity and suggestibility of his patients as many orthodox medical practitioners, and this may be the basis of some of the success claimed in treatment. Conceivably acupuncture analgesia may in certain circumstances have a similar derivation, but this seems unlikely to be an invariable feature. An alternative explanation is that there are neurophysiological mechanisms whereby peripheral stimulation has distant effects at either a thalamic or a subthalamic level. Analgesic applications deserve study by both neurophysiologists and anaesthetists, and it would be a pity if it were inhibited in Britain by its unorthodoxy. Perhaps the Medical Research Council might initiate a preliminary scientific investigation.

¹ Matsumoto, T., and Hayes, M. F., *American Journal of Surgery*, 1973, 125, 176.

Glove Powder: A Surgical Hazard

In 1947 the modern commercially available surgical glove powder came into widespread use after a paper suggesting it was biologically inert.¹ Experiments on dogs showed that it produced little or no reaction when introduced into the peritoneal cavity, and it compared very favourably with talc, which was in general clinical use at that time. Not only did talc produce experimental peritoneal lesions but there was ample evidence which showed it to be responsible for wound granulomata, intestinal fistulae, and peritoneal adhesions and nodules in patients.²⁻³

Unfortunately the initial hopes that the new glove lubricant would prove inert in clinical use have proved wrong. The main constituents of this powder are corn starch and magnesium oxide. In 1955 two patients were reported in whom corn starch powder was undoubtedly responsible for wound granulomata,⁴ and in 1956 there appeared the first report of starch granuloma peritonitis.⁵ By 1965 the sixteenth case of starch granuloma peritonitis had been reported.⁶ Most of the original observations appeared in the U.S.A. but recently reports have appeared in the British journals with increasing frequency.⁷⁻⁹