Specificity of the Paul-Bunnell Test

SIR,—We read with interest the case report by Dr. L. A. Price and Mr. D. G. Davies (5 April, p. 31) of lymphoblastic lymphosarcoma in a 71-year-old female presenting with a positive Paul-Bunnell test. Recently we treated an 18-year-old girl with superior vena cava obstruction and a positive Paul-Bunnell test who subsequently was proved to have lymphocytic lymphosarcoma.

A previously healthy 18-year-old student developed a slight sore throat and malaise, followed two weeks later by some shortness of breath and of tightness in the left arm. These latter symptoms were more marked when she was lying flat. Examination at time of admission revealed marked bilateral jugular venous distension with facial swelling and cyanosis. A few small (1 cm) lymph nodes were present in the left axilla and on the left side of the neck. The remainder of the physical examination was normal. Clinically she had superior vena cava obstruction and a chest x-ray showed an anterior mediastinal mass. Examinations were made of the lymph nodes in the supraclavicular fossa and a biopsy of a superficial node the next morning, but the nodes disappeared overnight and her symptoms became less severe. The admission Hb was 13·5 g/100 ml, W.B.C. 6,800, and E.S.R. 10. The differential showed 59% neutrophils, 35% lymphocytes, and 6% monocytes. Some of the lymphocytes were atypical. A Paul-Bunnell test was positive (titres: unabsorbed serum, 1:448, absorbed with guinea-pig kidney 1:112, absorbed with beef red cells, negative). Agglutination tests for cytomegalovirus were negative. Immunelectrophoresis showed a slight increase in IgM and a very slight increase in the alpha-2-macroglobulins. A bone marrow examination showed a slight increase in lymphocytes with some large atypical cells present. These normal Lymphocytes, and thyroid scans intravenous pyelogram, aspartate transaminase, and serum bilirubin were normal.

She remained afebrile throughout her hospital stay. The superior vena cava obstruction progressed with development of collateral veins. The chest x-ray remained unchanged. The Paul-Bunnell titres and absorption tests repeatedly were typical of infectious mononucleosis. About one month prior to her illness she had been tranquillized with drugs which developed infectious mononucleosis one week later. Her boy friend had had the illness four years earlier.

We felt that either this was a most unusual case of infectious mononucleosis progressing to superior vena cava obstruction or two coincidental diseases. A mediastinoscopy two weeks after admission confirmed the presence of a mediastinal mass, but biopsy was impossible due to the engorged inominate vein. Following the mediastinoscopy, her symptoms became much worse and at this point she was started on steroids with rapid symptomatic improvement.

She was discharged on prednisone 10 mg four times daily, but after four weeks the mass had not decreased in size. We then decided to treat the lesion with a presumptive diagnosis of malignant lymphoma. 3,500 rads was given to the mediastinum over three weeks, while the prednisone was gradually discontinued. Radiotherapy was followed within three weeks by complete clearing of her symptoms and disappearance of her mediastinal mass. However, 20 days after completion of radiotherapy, two lymph nodes 2 cm in diameter appeared in her left supraclavicular fossa and at the angle of the jaw. These were biopsied and the pathology report confirmed the diagnosis of lymphocytic lymphosarcoma. Lymphangiograms, superior vena cavaogram, and gastrointestinal films were negative. Another small lymph node appeared in the left axilla. A further dose of 2,500 rads was given to the supravacular and axillary areas and an additional 2,000 rads to the upper neck.

At the present time, three months after completion of therapy, the patient has no evidence of recurrence of lymphoma. A Paul-Bunnell test one month ago was still positive (titres, unabsorbed serum 1:56; absorbed with guinea-pig kidney 1:28; absorbed with beef red cells, negative).

The specificity of the Paul-Bunnell test is felt to be quite definite, although falsely positive tests have been reported rarely in Hodgkin's disease, rheumatoid arthritis, tularaemia, diabetes, acute haemorrhagic, and new lymphosarcoma can be added to the list. Our patient was in the right age group for infectious mononucleosis and had been exposed to it. We cannot exclude the possibility that infectious mononucleosis occurred coincidentally with the lymphosarcoma.

Recent work, however, has suggested that there may be a common viral causative agent of lymphomas, leukemias, and infectious mononucleosis. If this is the case, then this may be a rare case of lymphosarcoma presenting with a positive Paul-Bunnell test.

I am, etc.,

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Disappearance of L-Dopa

SIR,—Far from being apathy in the pharmaceutical industry towards the production of L-Dopa (2 August, p. 300) it should be known that at least four companies are conducting research into ways of purifying this material. Its use until now has been as a chemical reagent; a much higher degree of purity is essential before it can be used as a medicine for human use.

The pharmaceutical industry is co-operating with the Medical Research Council to ensure that full clinical trials are carried out, and plans for these trials are now well ahead. Because of the difficulty of manufacture, the investment in plant is going to be considerable if large-scale production is considered, leading to acceptable prices.—I am, etc.,

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Cost of Anaesthetic Agents

SIR,—I have read with interest the three articles by Dr. P. L. Jones and others on obstetric analgesics (2 August, pp. 235, 259, and 263). At the end of the third paper they state that "the trichlorethylene does not appear to have any special advantage over the other two agents" (nitrous oxide and methoxyflurane).

I would have thought that, since the differences between them appear somewhat marginal, the fact that trichlorethylene is about 45 times as cheap as methoxyflurane per unit volume would have constituted a "special advantage." The time when the mere mention of the cost of any particular treatment was considered unethical has unfortunately passed.—I am, etc.,

C. LANGTON HEWER.

Radiology's New Chance

SIR,—Dr. C. K. Warrick in his letter (28 June, p. 821) made a comparison between superintendent radiographers grade III and teacher principals of radiography grade A. I would like to draw attention to the fact that since 1968 it has become compulsory for a teacher principal to possess an additional qualification before appointment.

To gain this comprehensive qualification involves:

(a) Attending a part-time course of up to two years in order to sit for and pass the technical certificate examination, the General Medical Council's Handbook, which reads as follows:

["(e) 'Covering', i.e. assisting unregistered persons to practise Medicine "

Relation to health, disease, and healing functions relevant to Medicine, Surgery, and Midwifery.

Any doctor who knowingly enables or assists a person, not duly qualified and registered as a medical practitioner, to undertake to treat patients in respect of matters requiring medical or surgical discretion or skill, becomes liable to disciplinary proceedings.

The foregoing statement is not to be regarded as affecting or restricting in any way (a) the proper training of medical and other bona fide assistants, or (b) the proper employment of nurses, midwives, and other persons trained to perform specialized functions relevant or supplementary to Medicine, Surgery, and Midwifery, provided that the doctor concerned exercises effective supervision over any person so employed and retains personal responsibility for the treatment of the patient.

It will be understood that no doctor should enable any uncertificated person to attend a woman in childbirth, save in urgent necessity or under the personal supervision of a doctor."

This quotation should make the position quite clear to any doctors who may be approached in this context by individuals or organizations, and enable them to act appropriately. If doctors have doubts about a particular situation they should advise them to write for advice to the Association or to their defence society.—I am, etc.,

WALTER WOOLEY,
Chairman,
Central Ethical Committee, B.M.A.
London W.C.1.

REFERENCE

1 Functions, Procedure, and Disciplinary Jurisdiction, General Medical Council, 1969.

"Covering" or "Displaying"?

SIR,—The Central Ethical Committee has recently received queries from a number of doctors about the dangers of associating with unqualified persons engaged in medical treatment. These queries have arisen as a result of a circular letter addressed to practitioners. I am supported by the three defence societies in the view that it would be most helpful to the profession if, through the hospitality of your columns, attention is drawn to the relevant sections of the General Medical Council's Handbook, which reads as follows:

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Relation to health, disease, and healing functions relevant to Medicine, Surgery, and Midwifery.

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