

culation is indicated by our findings^{1, 2} that in blood obtained from the uterine veins this factor was greater than that in the arterial blood. Plasminogen activator levels were estimated by the euglobulin lysis time (E.L.T.) method.³

Evidence supporting our findings is provided by the observations published by bination of phenformin-stanozolol is as Maki *et al.*⁴ These workers, investigating the fibrinolytic activity in blood from the vasa efferentia of the uterus and comparing it with that in blood from a cubital vein, found that this activity was considerably increased in the blood from the uterus. They suggested that this constituted indirect evidence that the uterus contributed activators to the systemic circulation. Moreover, in a comparative study of blood from a uterine vein and a uterine artery in 14 patients, Cash,⁵ using the E.L.T. method, found marked increased fibrinolytic activity in the former.—I am, etc.,

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Vagotomy for Peptic Ulceration

SIR,—I am indebted to Mr. H. Burge for his communication (31 January, p. 301) as this gives me an opportunity to explain to him why he has failed to use the leuco-methylene blue dye successfully to detect the vagus nerve branches in the operation of vagotomy. I fear that Mr. Burge's lack of success with this perfectly simple procedure must be due entirely to his failure to apply the technique correctly. The leuco-methylene blue is most effective in detecting even the smallest branches of the vagus nerve, which he describes, quite rightly, as being almost hair-like in size. Without using the leuco-methylene blue dye it is a physical impossibility to seek out these tiny tendrils, so militating against the success of the vagotomy operation.

I must also make the point that the dye is not used to "test" the completeness, or otherwise, of vagotomy but to aid the operator in identifying the nerves before removal. If the surgeon wishes to use the Burge electrical stimulation test after completion of the operation, then that is fine.

May I appeal to Mr. Burge, therefore, to use the leuco-methylene blue dye properly, when, I can assure him, he will find, as I and many others do, that the dye does indeed show up clearly the hair-like branches mentioned in his letter. In support of this, I can show Mr. Burge a number of pathological reports selected at random and relating to tissue removed at vagotomy, which show that after a selective or total

vagotomy that 75% of specimens excised after staining were indeed nervous tissue, thus showing that the dye can detect these fibrils after the main trunks have been dealt with.—I am, etc.,

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Pertussis Vaccine as Immunological Adjuvant in Leukaemia and Lymphoma

SIR,—We read with great interest the report of Drs. R. J. Guyer and D. Crowther (15 November, p. 406) on the possible delay of the onset of relapse in patients with acute lymphoblastic leukaemia who were brought into remission first by conventional chemotherapy, and then were treated with *Bordetella pertussis* vaccine.¹

Early in 1967 we observed that treatment with *Bordetella pertussis* vaccine exerted immunosuppressive effect in mice. In these low-leukaemia mice no pyroninophilic lymphoid cells were mobilized in the spleen upon stimulation with phytohaemagglutinin² and a cell-grafted antigenic lymphoma showed an accelerated course of growth.^{2, 3} Recently, we found that intravenous treatment of high-leukaemia A.K.R. mice at birth with *Bordetella pertussis* vaccine induced a leukaemoid reaction. However, at the tenth month of life, a 10-fold decrease in leukaemia was observed in the treated group, as contrasted to sham-treated control A.K.R. mice.⁴—We are, etc.,

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Miliary Tuberculosis in the Elderly

SIR,—Since so little is being published on tuberculosis in the world's medical literature, it is encouraging to read Dr. A. T. Proudfoot and colleagues' article (3 May, 1969, p. 273) and also your leading article on the same subject (p. 265).

Tuberculosis among older adults and elderly people remains a serious problem. In a few countries, including Canada, Britain, Holland, Scandinavian nations, and the U.S.A., where preventive methods have protected infants and children against invasion of tubercle bacilli for several decades, there has been phenomenal reduction in clinical disease in people born during that era. However, older adults and the elderly people of today were infected in large numbers as children before these preventive measures were established.¹ Many of those

who have survived are still harbouring tubercle bacilli in caseous material in encapsulated lesions of primary tuberculosis complexes. These lesions which are avascular, do not recrudescence, but in a small percentage of them nature resorbs parts of walls of capsules and tubercle bacilli are evacuated without other change in the primary lesions. Wherever the evacuated tubercle bacilli lodge they result in endogenous reinfections on allergic tissue, resulting in such conditions as effusions in serous spaces and chronic pulmonary tuberculosis. Evacuation of tubercle bacilli into a lymphatic or blood vessel results in miliary tuberculosis. This may occur in the absence of other overt disease, and therefore is the first manifestation of clinical tuberculosis.

This situation must be expected to continue whenever older adults and elderly people are harbouring encapsulated lesions of primary complexes. The problem will not be solved until these individuals have been replaced by oncoming generations who have been successfully protected against invasions of tubercle bacilli. In some places this changing situation is now in evidence. In the State of Minnesota in 1954 a county-wide tuberculin-testing survey revealed that 47.7% of men from 50 to 59 years and 44.1% of women of the same age reacted to tuberculin.² However, testing in the same state in 1967 revealed that 6.3% of men and women of 50 to 59 years reacted. Among those of 60 years and older, 10.5% reacted to tuberculin. In the same state in 1967 all of the deaths from tuberculosis were in people of 45 years or older, and of the new cases reported that year 83% were in that age period.

When the time comes in any area that no person in the earlier decades of life is invaded with tubercle bacilli there will still be well-encapsulated lesions of primary complexes in the bodies of some elderly people. In the old-age period tuberculosis remains one of the world's most serious diseases. Therefore the diagnostic and therapeutic procedures practised and recommended by Dr. Proudfoot and his coauthors should be adopted by the medical profession everywhere if the tubercle bacillus is to be prevented from spreading from elderly people back to infants and children.—I am, etc.,

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Renin and Acute Renal Failure

SIR,—I was interested to read the findings and hypotheses put forward by Dr. J. J. Brown and others (31 January, p. 253) regarding oliguric renal failure. As they say, plasma renin activity is increased in patients with cirrhosis and ascites and may be accompanied by diminished renal blood flow and failing renal function.

In work to be published shortly¹ my former colleagues and I have shown a significant inverse relationship ($r = -0.59$, $P = <0.05$) between plasma renin activity and the renal clearance of para-aminohippurate in 13 such patients. However, when clearance of para-aminohippurate was increased (mean increase 58%) by a constant intravenous infusion of dopamine, plasma renin

activity fell ($P = <0.05$), suggesting that the raised plasma renin activity in these patients was probably the result and not the cause of the initial renal vasoconstriction. This fall in plasma renin activity could not be attributed to a change in arterial blood pressure.—I am, etc.,

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Role of Social Workers

SIR,—I cannot allow Miss Joan Brandon's rather resigned comment in "Personal View" on communications between the medical and social work professions (7 February, p. 361) to go unanswered. She says that even the contributions from social workers in medical journals "seems unable to arouse much interest or to stimulate correspondence." She has stimulated mine.

I agree heartily with the sentiments which she expresses concerning the gap between doctors and social workers. In Scotland, of course, we are a step ahead in that the Social Work (Scotland) Act 1968 (see *Supplement*, 22 November, 1969, p. 43) is at present being implemented and creating many of the situations recommended in the Seebohm Report which she discusses. Those of us who were apprehensive about these plans felt much as she did. "It is not, of course, so easy to separate social problems from medical problems, and there is a whole range of emotional reactions to ill-health and social malfunctioning which interests both doctors and social-workers"—and, may I add, is the responsibility of doctors as well as social workers. It seemed to us that to establish separate departments to administer social work was likely to aggravate rather than decrease the difficulties of communication arising in this large area of care in the community where social aetiology and therapy play a part in the diagnosis and treatment of "dis-ease."

It is difficult to say at this early stage whether this fear is going to be realized, but it is interesting to note that in one area a health visitor's assessment for the need for home help has been said to be inappropriate by those administering the services, and that in other areas the liaison committees for mental health services have ceased to invite any medical members to take part in their deliberations. It becomes more and more clear that positive action must be continually in the minds of those concerned, which will keep each profession informed about the work of the other and allow the members of both to co-operate closely.

It is, I believe, in the sphere of general practice, where the doctor is dealing with family ill-health in the community environment, that there is probably most overlap between social work and medical work, and yet it is in this sphere that there has been until now possibly the least knowledge of each profession by the other. I agree with Miss Brandon that medical students and doctors in the postgraduate years should be much more informed about the functions of the various branches of social work, but I would make a strong plea for allowing the social worker in training and afterwards to see very much more of the activities of the family doctor than has hitherto been the

case. I still frequently seem to evoke surprise from a social worker when I express knowledge, interest, or willingness to accept responsibility in many areas of care for my patients.

This purpose would be forwarded, in my view, by determined and early efforts to establish attachments of social workers to general practitioners in health centres or group premises. This is a most effective way of members of two disciplines learning about each other's work content, skills, and attitudes. It has been proved in the health visiting context, where communications were often unsatisfactory under the old regime and have improved beyond recognition since attachment schemes became the pattern.

It would not be unreasonably optimistic to anticipate the same development in the sphere of social work, with consequent improvement in the services rendered by both our professions to the public.—I am, etc.,

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Haemophilus Endometritis in Woman Fitted with Lippes Loop

SIR,—The article by Drs. M. B. Skirrow and A. Prakash (3 January, p. 32) prompts me to record a case of apparent infection of the female genital tract by non-capsulated *Haemophilus influenzae*.

A healthy woman of 29 had been fitted with a Lippes loop in 1967, having had three children in the previous five years. In January 1969 she had severe dysmenorrhoea and a heavy period, but no abnormality was noted on vaginal and abdominal examination. The February period was also heavy and painful. Intermittent lower abdominal colicky pain persisted after this period and was accompanied by an offensive, non-irritant discharge. Otherwise she remained well.

On examination, six days after the March period she was afebrile. There was no abnormality on abdominal examination, and there was no lymphadenopathy. Speculum examination showed healthy introitus, vagina, and cervix. A purulent blood-stained discharge was issuing from the external cervical os. A swab of the discharge was taken, and the Lippes loop was removed. On pelvic examination the uterus was anteverted, mobile, and firm, but bulky. The appendages were normal. No additional treatment was given after removal of the loop, and the symptoms cleared within two weeks.

Stained smears of the discharge showed blood and pus cells. Pure cultures of *Haemophilus influenzae*, of characteristic appearance, were yielded on aerobic and anaerobic blood agar plates and CO₂ plates. As this finding was so unusual the cultures were sent to Dr. K. S. Zinnemann, who confirmed that the isolate was non-haemolytic and X and V dependent, and noted a somewhat stubborn CO₂ dependence. After four subcultures the growth became completely adapted to air. The organism was non-capsulated, reduced nitrates to nitrites, and was catalase-positive and indole-negative.

There seems little doubt that the patient was suffering from endometritis associated with infection of a contraceptive device. The infection was not severe, and resolved after removal of the loop. *Haemophilus influenzae* is occasionally isolated from the vagina, and the route of infection is likely to have been an ascending one.—I am, etc.,

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Cigarette Smoking and Influenza

SIR,—I welcome the suggestion from Dr. J. S. Raban (17 January, p. 171) that this is an ideal time to encourage the habitual smoker to smoke no more. I wonder if this, combined with New Year resolutions, caused a good response to our offer of help at the Portsmouth Smokers Advisory Clinic.

Unfortunately, although the total weight of tobacco consumption per adult in the U.K. has been steadily dropping (6.9 lbs. (3.2 kg.) per adult in 1961, the year before the Royal College of Physicians' report, to 6.1 lbs (2.7 kg.) per adult in 1967), the number of cigarettes per adult per year has slightly increased from 2,810 for 1961 to 2,830 for 1967,¹ and advertising continues at a high level. In one month (August 1969) about three-quarters of a million pounds² (£736,025) were spent on advertising cigarettes and hoardings are not included in this figure.

In the preventive medicine and health education fields we shall need all the help we can get to create any large effect against this sort of competition. We must be thankful for the personal example of British³ and American doctors, but a Government ban on press advertisements for cigarettes would be accepted without protest by at least one of the more responsible Sunday newspapers, though it feels unable to take such action on its own account. I quote (with permission) from a letter written by one of that paper's editorial staff: "It [the paper] could not afford to lose this source of revenue while its competitors continue to profit from it."—I am, etc.,

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Lung Cancer: Diagnosis and Survival

SIR,—It occurs to me that in view of Professor P. Armitage's comments (31 January, p. 300) the point of the statistical argument he questions has not been as clearly expressed as it could have been. What I intended to convey in the penultimate sentence of the paragraph quoted by Professor Armitage was that the upper end of the mortality curve in the test series of lung cancer was not so much shifted as raised in level, which persisted for a longer period—that is, there were more long-term survivors. However, I shall be glad to let Professor Armitage have the relevant unpublished figures for his assessment.

It would perhaps be worth while to mention that the conclusions reached in the study (1 November, p. 260) were not primarily based on the difference in mean survival time between the test and control series but on other findings as well, particularly the difference in the five-year survival rate.—I am, etc.,

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