

are endemic could explain the finding of rickettsial antibodies in the sera of multiple sclerosis patients studied by Le Gac. It should be noted that rickettsiae are endemic not only in tropical Africa but also in northern Africa and other areas bordering the Mediterranean, including France. The only rickettsia affecting man known to be endemic in Britain is *R. burneti*, and no indication that Q fever is related to multiple sclerosis has been shown by the British investigations involving microagglutination tests in altogether 79 and complement fixation tests in 125 multiple sclerosis cases.

I therefore agree with Professor Field and Miss Chambers and with my local colleagues that there is no acceptable evidence for a rickettsial aetiology of multiple sclerosis, and I see no grounds for diverting time and resources to clinical trial of Le Gac's treatment.—I am, etc.,

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Management of Infants with Cerebral Palsy

SIR.—Dr. B. A. Stoll (29 November, p. 558) asks about district assessment centres for handicapped children and their place in the management of infants with cerebral palsy.

The country's first assessment centre for handicapped children, the Newcomen Clinic at Guy's Hospital, has one of the infant treatment units, as mentioned by Dr. Stoll, in the same building. Both the clinic and the infant treatment unit are available for patients from district and regional levels. As there are few therapists suitably trained for this work in the country at this time, they would be most effectively used at regional level. By teaching the parents management and exercise techniques, one therapist can supervise daily therapy for up to 50 infants, on a basis of monthly appointments. As such infants make some progress, parents do see an apparent response to their efforts. Distance from the centre ceases to be a disadvantage if appointments are intelligently geared to public transport facilities, and the unit provides a kitchen in which to meet the requirements of infant and parent.

As yet, there is little evidence of a specific benefit solely attributable to any of the exercise techniques currently available. It is, therefore, difficult to justify the time and expense involved from the standpoint of therapeutic effect. On the other hand, it would be impossible to provide overall guidance and stimulation without some basic exercise system. The physiologically most acceptable means of learning movement control and gaining sensory experience of all kinds is by voluntary movement. Techniques for promoting voluntary movements exist and, as one might expect, they do not require the effort demanded in passive movement therapy. The use of exercises for infants and young children is not new.

Rejection has not occurred during treat-

ment, perhaps because the parents are doing something to help, albeit in a limited way. They have also had the benefit of early, comprehensive assessment and all the general support inherent in both assessment and treatment sessions.

Let us first complete the organization of regional assessment centres with some provision for infant treatment in them. It is at this level that sufficient expertise may be acquired, research carried out, and teaching facilities provided. The regional centre's experience of local needs will then ensure that district centres are set up in the right place, at the right time, and with properly trained staff.—I am, etc.,

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Coronary Care

SIR.—We would like to comment on a few points made by Dr. J. Dominian and Miss M. Dobson in their recent paper on psychological attitudes of patients admitted to a coronary care unit (27 December, p. 795). In general we are in agreement with their findings and conclusions.

We have found good factual communication with the patient about his illness, combined with emphasis on the feasibility and need for rapid rehabilitation and return to work, to be most important in maintaining confidence and in preventing anxiety. Within a day or two of admission, when the initial high-risk period has passed, each patient is given a copy of a brochure entitled *Explaining Coronary Disease and Coronary Care* which has been prepared by us for this purpose. Our patients have invariably responded favourably to the detailed information on coronary heart disease causation and treatment contained in this brochure. We seldom require to provide sedation or tranquillizers, because we find that keeping the patient accurately informed of his illness and progress is a more successful and rational way of preventing anxiety. We share the experience of the authors that the transfer of the patients from the unit to other wards may give rise to feelings of insecurity and anxiety. We have avoided this problem by having four of our six monitored beds in the open wards of the cardiac department and by returning patients to cardiac beds contiguous to the coronary care beds after they have been demonitorized. It has been our successful policy to provide "open-plan" coronary care in a cardiac department of twenty beds where resuscitation facilities are immediately available to all occupants. Our patients find this arrangement to be reassuring, and, like the authors, we find that only a small minority of our private patients prefer to be moved subsequently to a private room.

Apart from the psychological benefits of having coronary care beds and beds for convalescent patients in the same wards, we have been successful in resuscitating the isolated late primary ventricular fibrillations, because patients remain in the coronary care area during their convalescence.

In discussing the long-term psychological attitudes of these patients we would like to make a few points about the length of stay

in hospital. Lown and Sidel¹ have advocated the early discharge of patients after myocardial infarction, and they consider it feasible to discharge the uncomplicated case in less than two weeks after admission. Early discharge may mean failure to resuscitate the occasional patient with delayed primary ventricular fibrillation, but we would put forward two other reasons why patients with recent myocardial infarction should be kept in hospital for a minimum period of three weeks.

Firstly, in the uncomplicated myocardial infarction patients should be fully ambulated by the end of the third week. From the psychological point of view it is of immense benefit that this active physical rehabilitation should take place under the direct supervision of the cardiologist and his medical, nursing, and physiotherapy staff. In particular we have found organized ward physiotherapy sessions to be valuable in the psychological as well as the physical rehabilitation of the patients. Secondly, no patient should be discharged without a full screening of all possible risk factors if an effective programme of secondary prevention is to be instituted. Screening includes studies of blood lipids, glucose tolerance, blood pressure status, smoking and eating habits, weight and exercise experience, family history, personality assessment, and other associated illnesses. An analysis of risk factors requires time and careful organization, and is best left until the patient is recovered from the acute illness. Measurement of serum cholesterol is best delayed for three weeks or more, because of a temporary depressing effect of the heart attack on lipid levels.² The assessment of the patients' blood-pressure status and glucose tolerance is also best done after two to three weeks.

The proposition that the elimination of risk factors will reduce subsequent morbidity and mortality in patients with coronary heart disease may well be a valid one and will appeal to the patient's sense of logic. In our experience this approach has been the single most successful factor in the full psychological recovery of our patients.—We are, etc.,

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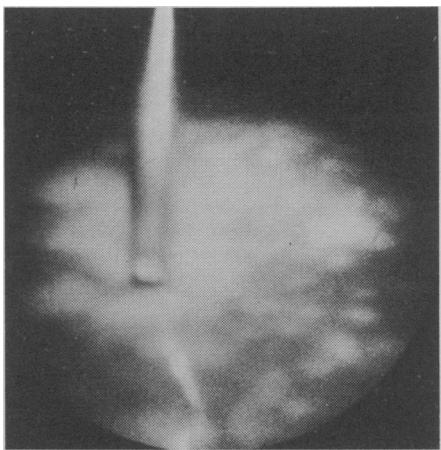
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Looking at the Liver

SIR.—Dr. K. P. Poulose and colleagues (6 December, p. 585) make an important point in emphasizing that major tumour surgery should be preceded by an evaluation of the patient's hepatic status. To be helpful to the patient this should be achieved without the need for a diagnostic laparotomy; the mortality for this procedure ranges between 12 and 19%.¹ Biochemical tests are notoriously unreliable. Liver histology would help if one could be certain of biopsying a representative area. Blind needle biopsy has been shown to detect metastases in less than 50% of cases with-known hepatic deposits.² Needle biopsy with the help of a liver scan may increase the accuracy of the

procedure somewhat, but recently liver biopsy under peritoneoscopic control has been found a much more valuable procedure in clinical practice.

The liver can easily be visualized using a fibreoptic peritoneoscope, and the area for liver biopsy carefully selected. Needle biopsy under direct vision using the peritoneoscope can then be performed (Fig.). This tech-



Needle liver biopsy of a metastasis under direct vision.

nique has been used in a recent series of 36 cases: in 16, liver biopsy was indicated. The

diagnoses made are shown in the Table. Laparotomy was performed in the three cases of cholestasis to correct the extrahepatic biliary obstruction; laparotomy was avoided in the remaining 13 cases.

Diagnoses made by Peritoneoscopy and Needle Liver Biopsy in 16 cases

Diagnosis	No. of Patients	Result
Carcinomatosis	11	Laparotomy avoided
Infective hepatitis	1	Laparotomy avoided
Cirrhosis	1	Laparotomy avoided
Cholestasis	3	Laparotomy performed

Facilities for liver scanning are not within convenient reach of many district general hospitals in this country. Peritoneoscopy is well within the compass of the general surgeon and, combined with guided needle liver biopsy, is recommended as a valuable method of assessing preoperative hepatic status.—I am, etc.,

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¹ Rodgers, H., and Johnston, G. W. In *Clinical Surgery*, edited by C. Rob, R. Smith, and C. N. Morgan, vol. 10, p. 457, London; Butterworths, 1966.

² Conn, H. O., and Yesner, R. (1963). *Annals of Internal Medicine*, 59, 53.

Mass Radiography

SIR,—Writing about the changes proposed in the mass radiography service in the document H.M.(69)97 recently issued to regional hospital boards, boards of governors, and hospital management committees by the Department of Health and Social Security, Dr. G. Z. Brett (27 December, p. 805) states, "To destroy such a service without even taking regional differences and problems into consideration is a retrograde step." With this conclusion I would agree.

In April 1969 the senior administrative medical officer of the Welsh Hospital Board discussed with me the possible future of the mass radiography service in Wales prior to the matter being considered in principle with his senior administrative medical officer colleagues. Presumably the views of the senior administrative medical officers would have been sought by the Department before the formulation of the policy decisions which were later outlined in H.M.(69)97. In Wales, a report on the mass radiography service was submitted to the Board's planning committee on 11 June, 1969, with the following recommendations, which were accepted by the Board:

(1) That closure of the mobile units should be undertaken.

(2) The static units should be retained, but attached to chest or radiological departments of appropriate hospitals.

(3) The suggestion that one light mobile unit should be retained for special surveys should not be implemented, as the anticipated work load would not justify this, and it would be impracticable because of the problems of staffing and maintaining equipment.

I was given permission to inform all my staff fully about these decisions on the understanding that they would keep this in-

formation in confidence. They were also assured that there would be no redundancy; all would be re-employed. There was, therefore, a minimum of "anxiety and a lowering of morale among dedicated members of the staff." There has been, however some "confusion among those who want to use the Service."

Concerning the medical and epidemiological factors involved in the difficult question—to close or not to close the mass radiography service—the following is relevant to the situation in Wales. The mass radiography service began in Wales in 1944 with the acquisition of one 35 mm. unit which was put into operation under the auspices of the Welsh National Memorial Association. In that year the rate of discovery of new cases of active pulmonary tuberculosis was 6 per 1,000 examined. By 1953 the service had expanded to 6 units; by 1960 there were 9 units, including 3 "circuit" units. These circuit units, which visited named locations at specific intervals, were put into operation to meet an insistent demand from the general practitioners for a readily available chest radiological service. These units were withdrawn in 1967 because of the persistently poor use made of them by the general practitioners. The percentage of cases referred by general practitioners was never higher than 8% and fell in the years 1966 and 1967 to 4%. In 1968 112,835 persons were examined by the three mobile units and 22 cases of pulmonary tuberculosis were discovered (a yield of 0.2 per 1,000 examined); 48,787 persons were examined by the three static units and 60 new cases of pulmonary tuberculosis were discovered (a yield of 1.23 per 1,000 examined). Thirty-six (60%) of these cases were referred by general practitioners and 24 (40%) from others who volunteered or who came with groups such as civil servants, shop assistants, and teachers.

In the year 1968, 573 new cases of active pulmonary tuberculosis were diagnosed in Wales from all sources and this includes the 82 found by the mass radiography service. Thus, the mass radiography service in Wales made a 14% contribution to the discovery of such cases in 1968.

The mobile units, which discovered 22 cases, made a contribution of 4% only. Whether a contribution of 4% justifies the continuation of the mobile part of the service is a question to be decided by epidemiologists.

During the first six months of 1969 requests for special factory surveys on account of the occurrence of a new case of pulmonary tuberculosis were unusually large and accounted for 17 out of a total of 127 work-days. From this work no cases of pulmonary tuberculosis were discovered. This would point to the importance of the examination at clinic level of family and social contacts, rather than factory contacts.

Dr. Brett quite rightly asks, "Is there anything wrong in offering general practitioners x-ray facilities as a screening method on their lists?" Of course not. The Welsh Hospital Board has proposed that the static units, one in Cardiff, one in Newport, and one in Swansea, should be retained. This fully preserves the demands made by the general practitioners on the service, and furthermore, as these are to be preserved as static mass radiography units and not merely as a device for miniature radiography, freedom of access to these units for the general public is assured, limited though this service must be by geographical considerations.

Diagnoses other than pulmonary tuberculosis are made by M.M.R., especially in those persons referred by general practitioners. Of these diagnoses malignant neoplasms are the most important. In 1968, 148 malignant neoplasms were discovered by the Welsh mass radiography service (0.92 per 1,000 examined), of which 106 were found by the static units. Of those 106, 60 were found from persons referred by general practitioners and 46 among others. Dr. Brett has himself pointed out the role that mass radiography can play in the early detection of lung cancer, as has Dr. F. A. Nash and his colleagues (22 June 1968, p. 715). The results of the ten-year South London cancer study have established the value of six-monthly serial chest x-ray examinations in the reduction of deaths from lung cancer in men over 55 years of age. This is an exacting technique to apply in the country generally, demanding careful follow-up of registered attenders and requiring extra clerical staff working to research standards. Dr. Nash¹ also points out the value of six-monthly chest x-ray examinations for "keeping a watch on the heart silhouette," as well as the value of routine comparison with previous films of all persons showing some cardiac enlargement. This, too, is highly commendable, but equally demands the necessary staffing requirements to carry it out.

The Welsh Hospital Board is aware that the mass radiography service in Wales has undertaken much work on behalf of local authorities which has never been mandatory but has nevertheless been of considerable value to them, and has, I understand, effected considerable financial saving to the authorities concerned. Included in such work has been the examination of personnel employed in local authority departments, and examination of the staff of hospital and of persons about to leave training colleges and universities for entrance into the teaching profession. I presume that the Department of Health and Social Security will be making alternative arrangements for the examination of some of these persons—for example, those about to enter the teaching profession.