

lung metastases of adenocarcinoma of the colon in another. A temporary improvement in neurological signs occurred in another patient with spinal deposits of adenocarcinoma of the colon. In a patient with lung and liver metastases of rectal adenocarcinoma there was a reduction in the size of the liver, but this may have been due to treatment of congestive cardiac failure with digoxin and diuretics. There was no improvement in two patients with metastases of anaplastic carcinoma of the breast and ovary although the latter showed exceptionally high F.D.P. levels (1,500 $\mu\text{g}/\text{ml}$) during treatment.

Fibrin degradation products have been observed in women with malignant ovarian metastases,^{2,3} and may be derived from breakdown of plasma fibrin following release of thromboplastic substances into the circulation. We suggest that some of the F.D.P. occurring during anrod therapy may be derived not only from the expected breakdown of microclots in the circulation but also from degradation of fibrin filaments in the tumour.

It may well be that the malignant cells are exposed free from their surrounding sheath of fibrin filament and may perhaps be more susceptible to cytotoxic therapy.—We are, etc.,

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¹ Austin, J. P., and Glaser, E. M., *Clinical Science*, 1969, 37, 878.

² Astedt, B., Svanberg, L., and Nilsson, I. M., *British Medical Journal*, 1971, 4, 458.

³ Astedt, B., Svanberg, L., and Nilsson, I. M., *British Medical Journal*, 1972, 2, 47.

Future of Postgraduate Medical Centres

SIR,—It is a pity that your leader writer (3 June, p. 547) allowed his indignation to get the better of him in springing to the defence of Drs. John Lister and David Ferriman (3 June, p. 589). A leader in the *B.M.J.* may have widespread influence, and it is particularly important at the present time that postgraduate education in hospitals should not be seen as a narrow sectarian interest of the medical profession. Besides, have doctors forgotten the debt they owe nursing schools for help in the days before there were postgraduate centres?

Our own centre, built eight years ago, is bursting at the seams. Our policy has been that the building should be used by any discipline for educational purposes, but it is increasingly difficult to accommodate all comers, with the so-called radiography and midwifery schools, for example, having inadequate accommodation and groups like physiotherapists, laboratory technicians, and administrative staff none at all. Our personal opinion is that an adequate institute, far from being a tidy administrative arrangement, would bridge the gap between medical, nursing, technical, and administrative staff. Successful treatment of patients in hospital depends on teamwork. Sharing facilities for education must surely help to unify the team and improve its performance. It should also promote friendly relations between all types of staff, and under such circumstances pleas from doctors to preserve their independence would be unthinkable.

Such an institute would have the added advantage of ensuring a decent-sized lecture theatre (which no postgraduate centre can provide on its own), proper dining facilities, a large multidisciplinary library, and a

common room for all staff. Overnight accommodation for visitors might also be considered, and it has been suggested that recreational facilities, quite inadequate in most district hospitals, might be added. Of course we would expect separate facilities for individual users, and if there has been dispute in the past between medical staff and others over the use of an educational institute, it is surely interpersonal relationships rather than the principle that should be questioned. Our worry is that the Department of Health will not think big enough, because such an institute will cost several hundred thousand pounds compared with the £12,000 spent on our centre eight years ago.—We are, etc.,

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SIR,—I would be grateful for an opportunity to comment in your columns on the issue of postgraduate medical centres and the related subject—the training of doctors in management.

I agree entirely with the sentiments expressed by Dr. C. P. B. Brook and Dr. A. Keep (24 June, p. 769), and would like to add that in my view the education of doctors in methods of administration and insight into the role of others in the paramedical fields in the patient-care situation should begin as early as possible in their careers, even in their undergraduate days should the curriculum allow. A knowledge and understanding of the functions and responsibilities of the lay (non-medical) administrator, especially in the hospital environment, will break down barriers of contention and open the way to a situation where the roles are clearly identified and regarded with that degree of deference that the important discipline of management deserves. The complete and total care of the patient with a multidisciplinary approach to the problem is, I believe, the only answer in an increasingly complicated social structure such as ours and the development of multidisciplinary postgraduate centres where forward-looking attitudes can be fostered must surely encourage this concept, with ultimate benefit to the patient which is, after all, the primary object. Should the converse situation be perpetuated—that is, that the medical profession remains in splendid isolation, as it were, and the doctor, and only the doctor, is the person who treats the patient and thus knows best—this is a concept out of keeping with modern trends where community and preventive medicine, including psychiatry, are practised with no small measure of success.

I trust, therefore, that in the future postgraduate medical centres will in fact have a multidisciplinary orientation, and that the doctor will continue to spearhead the team.

To those critics who would suggest that doctors have little if any role to play in management, I would remind my colleagues that if the medical profession does not manage its affairs and take an active interest and participate fully in administrative matters as it concerns them, then others will do it in their stead and without the benefit of their expert advice.—I am, etc.,

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Adenovirus Demonstrated by Immunofluorescence

SIR,—Many acute respiratory virus infections have been rapidly diagnosed by immunofluorescence¹⁻⁴ and this technique has now been applied to the diagnosis of adenovirus infection. Sixty-five adenoviruses were isolated from nasopharyngeal secretions of 1,028 children admitted to hospital with acute respiratory infections. Staining of cells in these 65 secretions by the indirect immunofluorescent technique showed that 42 were negative for adenovirus and only 23 (35%) were positive. Fluorescent positive cells occurred most frequently in upper respiratory tract infections (18 out of 23) but rarely in croup, bronchitis, bronchiolitis, or pneumonia.

It would appear, therefore, that although 6.5% (65 out of 1,028) of acute respiratory infections of childhood were associated with adenovirus, only 2% could be diagnosed by immunofluorescence. This small number of patients that could be diagnosed and the mildness of the illness caused by the majority of adenoviruses would suggest that immunofluorescence for the diagnosis of respiratory infections by this group of viruses is uneconomical. The reason for only one-third of adenovirus infections being visualized by immunofluorescence in cells of the respiratory tract is, at the moment, unknown, but may reflect active infection in those cases with positive cells in contrast to the other patients in whom the infection may be of longer standing and not necessarily related to the current acute illness.—We are, etc.,

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¹ McQuillin, J., and Gardner, P. S., *British Medical Journal*, 1968, 1, 602.

² Hers, J. F. Ph., van der Kuip, L., and Masurel, N., *Lancet*, 1968, 1, 510.

³ McQuillin, J., Gardner, P. S., and McGuckin, R., *Lancet*, 1970, 2, 690.

⁴ Gardner, P. S., McQuillin, J., McGuckin, R., and Ditchburn, R. K., *British Medical Journal*, 1971, 2, 7.

Total Hip Replacement

SIR,—I was very interested to read the articles by Dr. Jacqueline Harris and others (24 June, p. 750) and Mr. R. C. Todd and others (24 June, p. 757). I have recently carried out a review on 778 patients over the age of 70 years, with various types of hip lesions¹ treated by the Charnley method at the Centre for Hip Surgery, Wroughton, and I thought it might be interesting to note a few of the results for comparison.

My review was aimed at discovering the complications of the procedure rather than assessing the actual functional results, which of course, has been done by Mr. Charnley himself.² In this series only one patient had a deep infection which required removal of the prosthesis, and 3.2% (25 patients) had superficial wound sepsis, which cleared up before the patient was discharged from the hospital. There appeared to be no significant difference in the sepsis rates according to aetiology, although it is well known that revision operations carry a higher risk than primary procedures.

I did not review trochanter detachments,