sions when toxic buccal and gastrointestinal symptoms develop to mild or moderate severity.

One patient received an initial infusion of 11 g. in five days without any clinical benefit or toxic symptoms. Six weeks later infusion was repeated. A total of 31 g. was administered in 14 days. This was excessive, causing severe gastrointestinal and haematological effects, but recovery was rapid. The most recent case, a young British migrant, received 19 g. in nine days into the hepatic artery (not the coeliac axis). This infusion was deliberately terminated early because the patient intended to, and three weeks later did, return to Britain, with a patent catheter in situ.

The clinical course of these cases, and laboratory surveillance by Dr. W. Roman, of the Institute of Medical and Veterinary Science, North Terrace, Adelaide, showed that the dosage used was well tolerated systemically and by the liver parenchyma. Serial serum enzyme estimates by Dr. W. Roman revealed large increases in serum lactic dehydrogenase and very small increases in alanine aminotransferase, but minor changes in other liver-function tests. This was regarded as clear indication of breakdown of tumour cells in preference to parenchymal liver cells. These results have been reported in a paper presented to the Sixth International Congress of Clinical Pathology, with the result of confirmatory hepatic infusion in animals by Dr. S. T. Hopcraft. Full details of this work will be published in due course.—I am, etc.,

N. D. M. HARVEY.

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Royal Adelaide Hospital,
Adelaide, South Australia.

Oestrogens and Thromboembolism

SIR,—I wish to take issue with you over your leading article on oral contraceptives and thromboembolism (27 April, p. 187). This article led recently to a minor panic in the popular press in Australia about the alleged dangers of oestrogens in oral contraceptives, a panic quite unjustified by the scientific evidence you have uncritically quoted.

It is true that the work of Drs. M. P. Vessey and R. Doll (27 April, p. 199) did not incriminate any particular kind of oral contraceptive, and it is also true that there is other evidence that oestrogens may have an effect on blood clotting. But then you go on to say that these findings suggest that it is the oestrogens rather than the progestogens which are responsible for thrombosis. This statement is quite unjustified on the evidence quoted, and so is your next statement that sequential preparations are therefore more dangerous than combined.

The first authority you quote is that of Daniel, Campbell, and Turnbull.¹ These authors used oestrogens in the form of diethylstilboestrol in doses of 30–60 mg. daily for three days and then 20 mg. daily for a final three days, and they reported that this regimen significantly increased the risk of embolism in the puerperium. However, when the doses used are considered, one begins seriously to wonder whether oestrogens, as used in the suppression of ovulation, are necessarily dangerous. Martindale² suggests doses of 5 mg. of diethylstilboestrol three times a day for three days and then 5 mg. daily for six days, for the suppression of lactation (a total of 75 mg. as opposed to the doses used by Daniel *et al.* of 150–240 mg.

given over a shorter period). Martindale quotes 1 mg. of diethylstilboestrol as being equivalent in potency to 0.05 mg. of ethinyloestradiol, so that in effect Daniel *et al.* were using doses, in six days, equivalent to up to 240 by 6 by 0.05 mg. (=72 mg.) of ethinyloestradiol. The dose of this drug for ovulation suppression over the same period would be 0.60 mg. This means that Daniel *et al.* were using doses 120 times higher than those used in ovulation suppression. This casts some doubt on your suggestions about the danger of oestrogens in more physiological doses as used in oral contraception.

The other authority you quote in support of your somewhat shaky arguments is Oliver,³ who found that unstated doses of ethinyloestradiol in men produced more episodes of thrombotic type than occurred in controls. The figures given are not analysed statistically. Oliver also suspects oestrogens and quotes in support of his argument the work of Wynn and Doar⁴ and Wynn, Doar, and Mills.⁵ These authors studied glucose metabolism and other factors of blood chemistry in women who had been on oral contraceptives and compared results with a control group. There were certainly significant changes in the test group, but neither Oliver nor the *B.M.J.* is entitled to draw any conclusions about the effects of oestrogens from this work, because the oral contraceptives studied, as pointed out by Wynn *et al.*, were almost exclusively of combined type (and in fact most of those used contained 19 nortestosterone derivatives, which are known to have certain androgenic and anabolic properties).

Oral contraceptives are not an entity, but vary widely in their qualities. Conclusions drawn about combined oral contraceptives give information about the effect of combined oral contraceptives—not the relative parts played by different components.—I am, etc.,

A. ARNAUD REID.

Seaforth,
New South Wales, Australia.

REFERENCES

- ¹ Daniel, D. G., Campbell, H., and Turnbull, A. C., *Lancet*, 1967, 2, 287.
- ² *Extra Pharmacopoeia: Martindale*, 25th ed., 1967. London.
- ³ Oliver, M. F., *Lancet*, 1967, 2, 510.
- ⁴ Wynn, V., and Doar, J. W. H., *Lancet*, 1966, 2, 715.
- ⁵ Wynn, V., Doar, J. W. H., and Mills, G. L., *Lancet*, 1966, 2, 720.

Disappearing Drain

SIR,—A recently encountered complication from the use of closed suction drainage may be of interest to your readers.

A 42-year-old man was submitted to a left medial meniscectomy. As he had had previous femoral artery disease which had required surgery a tourniquet was not employed for this procedure. After routine haemostasis had been secured the wound was closed over a perforated plastic closed suction drain. Six hours after the operation the drain was removed, as there had been virtually no return in the suction bottle. The drain came out with some difficulty, and it was therefore strongly suspected that a segment of the drain had in fact broken off within the joint. Multiple x-rays of the joint were taken without revealing any foreign body within the joint. The knee was then x-rayed with the catheter lying on the skin. Under these latter conditions with the catheter filled with air the plastic showed up clearly. The knee was then re-explored through the original operation wound and a 2 cm. segment of plastic drain was removed

which matched exactly to the end of the major fragment, the plastic having broken through one of the perforations. Under the particular circumstances encountered the fragment of drain could not be demonstrated by x-ray examination.

There seems to be a case for having this type of appliance impregnated with radio-opaque material.—I am, etc.,

W. M. RIGAL.

Department of Surgery,
University of Alberta Hospital,
Edmonton, Canada.

Organic Brain Dysfunction

SIR,—The clarification of the questions which Drs. P. Graham and M. Rutter (21 September, p. 695) brought to the combination of organic brain dysfunction and childhood psychiatric disorder was well served by a deliberately restrictive methodology, such as applied in their valuable investigation. They excluded non-current neurological disorder and "minimal brain damage." Important as their findings are for this whole field, they should not, by their acknowledged weight, overshadow the existence of further possibilities and problems which are present in the same field.

This field clearly comprises two sectors: the "coexistence" sector, and the "sequels" sector. They both stand in their own right, but connecting points may be lost to sight if mutual exclusion should become a rule. There is much to be said for the "longitudinal" (or life-developmental) aspect, which brings out further facts relevant to psychiatry. For instance, some children who have suffered from chorea or one of the post-infectious encephalopathies of the encephalitic or meningitic type or even severe concussion (and some like these must have been among the nearly 12,000 Isle of Wight schoolchildren) may in the long run become even more productive of psychiatric symptoms or developments than the children highlighted in the survey.

As one who has applied some endeavour to the investigation of the "sequels" sector,¹ I venture to hope and to plead that research developments may bring about a combination and integration of the two possible aspects.—I am, etc.,

STEPHEN KRAUSS.

Reading.

REFERENCE

- ¹ Krauss, S., in *Proc. 8th Internat. Congr. Neurology, Vienna, 1965*, Vol. 5, p. 145.

"Sniffing" and Addiction

SIR,—The paper by Dr. J. Merry,¹ and your leading article,² on the subject of addiction to "glue sniffing," have prompted me to report another case of addiction to a volatile organic substance.

Not long ago I encountered a young man who had decided to try for fun the effect upon him of inhaling carbon tetrachloride, a liquid much used in industry and to which he had easy access. Liking the feeling of light-headedness (and other sensations) produced when a small quantity of carbon tetrachloride was poured on a handkerchief and inhaled, he could not resist the temptation to repeat the experiment with ever-increasing frequency.

But there came a time when the inhalation of the carbon tetrachloride vapour produced—not agreeable sensations—but frightening hallucinations. He imagined himself to be surrounded by rats “as big as dogs” and “ponies with heads like dinosaurs.” These imaginary animals were “all white like ghosts.”

Finding that the horrors recurred whenever he repeated the experience of inhaling the carbon tetrachloride, he abandoned the habit. He affirmed that a number of his friends had likewise acquired a penchant for carbon tetrachloride vapour. The young man concerned had previously passed through a phase of taking “purple hearts.”—I am, etc.,

J. TODD.

High Royds Hospital,
Ilkley, Yorks.

REFERENCES

- ¹ Merry, J., *Brit. med. J.*, 1967, 2, 360.
- ² *Brit. med. J.*, 1962, 2, 1043.

Common Skin Infections

SIR,—In the excellent article on the management of common skin infections (28 September, p. 787) it is stated that neomycin is undesirable for local application, yet the preceding sentence recommends Triadacortyl for flexural yeast infections. Triadacortyl is a useful preparation which contains neomycin in addition to triamcinolone, nystatin, and gramicidin. It would appear that the author of the article is unaware of the fact that this preparation contains the antibiotic which he regards as undesirable.

To overcome the problem of neomycin sensitivity which occasionally occurs Nystaform H.C. preparations containing iodo-chlorhydroxyquinoline, hydrocortisone, and nystatin are a useful alternative.—I am, etc.,

W. N. MORLEY.

Western Infirmary,
Glasgow W.1.

** Triadacortyl does contain neomycin, and we agree with Dr. Morley that Nystaform H.C. might be a suitable alternative.—ED., *B.M.J.*

Postgraduate Medical Centres

SIR,—Might I comment on the valuable survey of postgraduate medical centres (21 September, p. 736) by Dr. John Lister. He himself appreciates that his list may be incomplete, and I feel I must draw attention to the position in the Liverpool region. While it may well be true that there is no postgraduate centre financed in whole or in part by the hospital service, the Liverpool Medical Institution does in fact function very effectively as a postgraduate medical centre both for hospital and general-practitioner branches of medicine. Owing to our compact geography in this region three-quarters of our hospitals are within 12 miles (20 km.) of the Institution; and a fairly similar proportion of the doctors working in the region are similarly situated. The needs of junior hospital medical staff are a special charge in conjunction with the regional postgraduate medical committee. The library facilities are obviously far superior to anything that a postgraduate centre would normally expect,

and the full scientific meeting programme covers a wide field ranging from general-practitioner lunch-time refresher courses to specialist meetings.

Finally, may I say how I hope that Dr. Lister's paper will help to highlight the problem of those too far from the sort of facilities

we can offer, and that it might stir Health Service administrators to greater endeavour in this respect.—I am, etc.,

J. H. E. CARMICHAEL.
Honorary Secretary,
Liverpool Medical Institution.

Liverpool 3.

Hospital Career Structure

SIR,—I have been very disappointed in the correspondence about the hospital career structure. The aim of the profession has been to train young men so that they should be ready for consultant posts around the age of 32. No sensible person expects such a man to be completely competent at that age. All medicine is changing and consultants must change with it. The only consultant who is acceptable is one who continues to learn, and a consultant is no more competent at 40 or 50 unless he has continued to learn. To anyone who really thinks, it is obvious that the junior hospital staff need encouragement to continue in a career structure. They would earn more as general practitioners in this country and even more abroad. We must therefore provide for them and particularly over the two difficult periods. Firstly, when they have obtained either their Fellowship or Membership, and again toward the end of their senior registrar period.

The first difficulty can be overcome by the provision of a supernumerary post, preferably in contact with the teaching hospitals, where, having finished a registrar's post either there or in the periphery, they could continue at a registrar grade of pay for a short time, and this time could be very well used by them in the various clinical research matters that have interested them in the past year or so, but which the general pressure of work has not allowed them to complete. Obviously, such a stepping-stone would not be for too long a time, and the regional university teacher would be able to supervise their progress at this time.

The next difficulty is towards the end of their senior registrar's post. At this stage

the young people have learned a lot and are only too anxious to stand on their own feet. To make them medical assistants is the worse thing possible, because the medical assistant has no direct responsibility and it is responsibility they need to complete their education. Again they could be holding posts in the larger hospitals, and if there is research to be done, which would again be probably of a clinical nature, this is a time for it to be thought about. Even more important is that these posts could be used to provide locum consultants in the periphery. Here one's department stagnates while one is away, because it is so difficult to obtain full-time cover. These young men would fill this gap, be very useful, and the experience would be useful to them too. These men would be paid as senior registrars while they were on their routine work, and as locum consultants otherwise. The Ministry would need to be told firmly that this is what must occur, and that the present regulations would need changing.

I think the other essential matter is to provide again opportunities for general practitioners to work in the hospitals in the same way as they used to before 1948 and still can do so abroad. They would provide far better registrar type service than many peripheral hospitals can obtain at the present time, and this would provide for the person who does not make his Fellowship or Membership grade or who finds, or is advised, that he will not make consultant grade in the early stages of his senior registrarship posts.—I am, etc.,

A. F. RUSHFORTH.

London W.1.

Responsibilities of Consultants

SIR,—With reference to the letter from the consultant staff of the Bedford General Hospital on responsibilities of consultants (21 September, p. 746), we would like to make the following observations. The undersigned consultant staff in this group are not so much dismayed at the composition of the working party as suspicious of the motives behind it.

We ask ourselves, what is the object of this working party, and what are its terms of reference? We are extremely doubtful that the Minister of Health has either the welfare of consultants or of other hospital staff in mind, and note that one of the members of the party is already reported as having said in public that the consultant as a category in the National Health Service “no longer fits in with the practical requirements of the age.” Could this be an attempt to produce the evidence that will enable the Minister to lower the status, standing, and, dare we say it, salary of the consultant staff?

“Divide and Rule” has been an effective slogan of the Ministry for many years now. Is it possible that by surreptitiously pressing the claims of the junior hospital staff at the

expense of the consultant the Minister will in the end further the aim of economy at the expense of the profession as a whole? While respectful of their integrity, we are doubtful if the clinicians on hand can safeguard the interests of the profession against such a formidable Ministerial team.

We would suggest the immediate formation of a committee by the British Medical Association composed of hospital doctors, both junior and senior, part-time and full-time, teaching and non-teaching, to give a joint unbiased report on the responsibilities of the consultant. We suggest this committee be formed urgently and its findings be published on the day following those of the working party of the Minister.—We are, etc.,

P. ABBEY.	K. R. DEMPSTER.
T. D. ANDERSON.	C. T. F. EALAND.
G. P. ARDEN.	R. J. LUCK.
D. W. BAIN.	G. F. M. PIERCE.
D. L. BENNETT.	J. RUBIE.
J. BLAXLAND.	S. C. SIMMONS.
E. J. D'ARCY.	D. S. SMITH.

King Edward VII Hospital,
Windsor.

REFERENCE

- ¹ *Medical Tribune*, 18 July 1968, p. 8.