Femoral vein thrombosis and total hip replacement

SIR,—I was interested to read of the high incidence of deep vein thrombosis (DVT) following total hip replacement described by Mr J D Stamatakis and his colleagues (23 July, p 223). This alarming incidence, coupled with the known serious embolic complications, gives much food for thought and obviously should influence us in the management of patients undergoing the operation.

However, I would like to ask two questions. Firstly, what were the diagnoses of the patients, and, secondly, what were the prior drug therapies? Presumably some of the patients suffered from rheumatoid arthritis and some may well have been taking aspirin. It is my clinical impression that DVT is rare in rheumatoid disease and aspirin is well known to influence the clotting mechanism. Although drug action may be difficult to assess by the methods used in the study, the influence of the underlying disease process could easily be judged and I think it is important that that information should be made available.

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*We sent a copy of this letter to Mr Stamatakis and his colleagues, whose reply is printed below.—ED, *BMJ*.

SIR,—We have read with interest the comments of Dr Clarke. The high incidence of thrombosis following total hip replacement (THR) reported by us is similar to that of other studies which have used objective methods for diagnosis.¹⁻⁴ Though we have not yet analysed our data in terms of the initial pathology prior to THR, the vast majority of our patients suffered from osteoarthritis. Those with rheumatoid arthritis are generally from a younger age group, who are known to suffer less from thromboembolism following this operation.²

The use of aspirin to prevent venous thromboembolism following THR is controversial.^{2,5,6} In a venographically controlled study we have failed to observe any benefit from this drug in this group of patients.⁷

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¹ Evarts, C M, and Feil, E J, *Journal of Bone and Joint Surgery*, 1971, **53A**, 1271.

² Harris, W H, et al, *Journal of Bone and Joint Surgery*, 1974, **56A**, 1552.

³ Morris, G K, et al, *Lancet*, 1974, **2**, 797.

⁴ Hampson, W G J, et al, *Lancet*, 1974, **2**, 795.

⁵ Dechevanne, M, et al, *Haemostasis*, 1975, **4**, 94.

⁶ Schondorf, T H, and Hey, D, *Haemostasis*, 1976, **5**, 250.

⁷ Stamatakis, J D, et al. Submitted for publication.

Treatment costs in the USA

SIR,—Your reviewer of a book on the treatment of children with cancer at Stanford Children's Hospital (29 October, p 1137) complains of the text's inadequacy and asks, "What is the cost, both emotional and financial, especially in a country where treatment has to be paid for by the parents?" I cannot speak of emotional costs, which are obviously high, but it is depressing that a journal of such

stature as yours betrays the ignorance implicit in the question. In the United States the overwhelming majority of persons, including children, are covered by hospital insurance, either private or governmental. As a result even long hospital stays and quite complex modes of treatment may cost the patient and his family little or nothing out of pocket. Surely that elementary fact of American medical economics should be known to those who write for and edit the official journal of the British Medical Association.

HARRY SCHWARTZ

Scarsdale, New York

SIR,—I have just syringed the ears of one of my patients who became deaf on a business trip to the States. The price he had been quoted 12 hours previously in New York for this manoeuvre was 30 dollars for one ear, or the cut price of 56 dollars if both ears were syringed. I feel sure that there must be a moral to be learnt from this story by both patients and doctors on both sides of the Atlantic.

H T N SEARS

Holmes Chapel, Cheshire

Cockles of the heart

SIR,—In his delightful annotation on the heart (Words, 12 November, p 1271) your contributor asks, "Where . . . are the cockles of the heart, and why does the application of warmth thereto give satisfaction?" I had unthinkingly accepted cockles to be the vernacular for auricles, as their sound when spoken suggests to me; but now I turn to my bookshelves to check up.

The large *Oxford English Dictionary* says of "cockles" that some have sought its origin in the Latin *corculum*, diminutive of *cor* (heart). It goes on to report another conjecture, that the most probable explanation lies in the zoological name for cockleshell (*cardum*, from the Greek for heart). Partridge (*Origins*) suggests cockle as an Anglicising of cochlea, itself akin to conch (or shell). Not very consistent, though some connection between hearts and shells seems to be accepted.

Then how and why are the cockles warmed? In the *Dictionary of Phrase and Fable* Brewer remarks that the phrase is used for anything that gives a gratifying sensation, as does drinking a glass of port. But, alas, he goes on to derive cockles not from the auricles but from the ventricles of the heart. In the chilling confusion your contributor might care to try a glass of port and I would gladly join him.

JOHN APLEY

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Pleuropericardial lesion in Q fever

SIR,—I was very interested in Dr J E Caughey's report of cases of Q fever with pericardial and pleuropulmonary involvement (4 June, p 1447). However, I would like to call your attention to the fact that, contrary to his statement, the pericardial lesion in Q fever was reported as long ago as 1949.¹ In this original description of Q fever in Portugal reference is made to two cases with pleural and pericardial effusions. And in 1976 when describing the

first Portuguese case of Q fever hepatitis without pulmonary involvement² we made a review of the literature, in which are recorded eight other cases of pericarditis, some with a chronic recurrent course.³

The same paper stresses the marked clinical pleomorphism of Q fever and confirms the efficacy, previously described by Freeman *et al*,¹ of co-trimoxazole, especially in the chronic forms of the disease. In the excellent review of chronic Q fever endocarditis by Turck *et al*,⁴ the use of co-trimoxazole is not mentioned. I think that the superiority of a bactericidal over a bacteriostatic agent in a condition such as Q fever endocarditis should not be ignored but further tested and, I hope, confirmed.

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¹ Fonseca, F, et al, *Clinica Contemporânea*, 1949, **3**, 1218.

² Pinto, J R, et al, *Jornal da Sociedade das Ciências Médicas de Lisboa*, 1976, **140**, 375.

³ Stephan, E, et al, *Archives des Maladies du Cœur et des Vaisseaux*, 1963, **56**, 1161.

⁴ Freeman, R, et al, *British Medical Journal*, 1972, **1**, 419.

⁵ Turck, W P G, et al, *Quarterly Journal of Medicine*, 1976, **45**, 193.

Seat belt legislation

SIR,—Events of the past week or two have suddenly made surgeons in Northern Ireland realise their special responsibility in persuading the community to accept legislation introducing the compulsory wearing of seat belts. The measure is particularly urgent here because the mortality per vehicle from road accidents in Northern Ireland is about double that in Great Britain, and we have killed more people in the past eight years with our cars than with bombs and bullets.

Mr Ray Carter, Parliamentary Under Secretary to the Department of the Environment for Northern Ireland, set up a committee here a year ago to consider road accidents—a committee which had no medical members. Among its recommendations was one urging compulsory seat belt legislation. After Mr Carter announced that he would introduce such a measure opposition began to appear. Firstly, there were many ill-informed letters in the press. Then Northern Ireland MPs began to voice objections, particularly about the means of introduction—through an Order in Parliament.

At this point I approached a neurosurgeon, an eye surgeon, a plastic surgeon, and an orthopaedic surgeon to see how strongly they and their colleagues felt on the issue. When we discovered virtually unanimous support for compulsory seat belts among our sub-specialties the five of us drafted a letter on the subject and sent it to our colleagues. Of 82 surgeons approached, four did not reply, five indicated their unwillingness to become involved with an issue which had become political, and 73 signed a strong letter, which we forwarded to all Northern Ireland MPs. Surgeons in Northern Ireland have backed this measure because they are convinced of the reduction in mortality and morbidity caused by wearing seat belts. They have backed compulsion because voluntary campaigns have rarely persuaded more than 30% of drivers to wear belts, whereas compulsion raises the level to 75-80%.

A private member's Bill at Westminster to bring in compulsory seat belt wearing in Great Britain failed at the committee stage, when there was an insufficient quorum in the

House late at night. While accident mortality in Great Britain is lower than in Northern Ireland, such a measure would still result in the saving of very many deaths and serious injuries. At a time when the National Health Service is crippled from lack of finance it is very difficult to see any other measure which could so quickly release many resources in hospitals. Mr Rodgers, the Minister for Transport, is well aware of the advantages and is keen to introduce an official Government Bill. If Mr Ennals does not recognise the implications for the Department of Health and Social Security they should be explained to him.

In Northern Ireland surgeons are now playing their part in mobilising understanding among the community at large and among MPs in particular. In Great Britain the public may well be deprived of the benefits of similar legislation for two or three years unless doctors and surgeons give a similar lead. Until we acted we were unaware how widespread and how strong medical opinion was. One would not question the ability of surgeons in Great Britain to persuade the community. The question is whether the will is there.

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Investigation of preclinical iron overload

SIR,—Your recent leading article (12 November, p 1242) drew attention to the inadequacy of present methods for the detection of preclinical iron overload, a condition which should be sought in the relatives of a symptomatic patient with haemochromatosis if affected individuals are to be offered prophylactic treatment. Although they may be abnormal in some cases, the lability of plasma iron and transferrin saturation and the delayed increase in serum ferritin reduce the value of these non-invasive techniques as screening tests.¹⁻⁴

We have recently described a 74-year-old Englishman (case I in the accompanying table) who had thalassaemia minor, developed iron overload in the absence of exogenous iron therapy, and died of a hepatoma.⁵ We have investigated the iron metabolism of three of his children, all of whom have raised liver iron concentrations. One of them (IIC) has normal plasma iron, transferrin saturation, and stainable iron, but his liver iron concentration is high. Another (IID) has a raised transferrin saturation and high liver iron concentration, but normal ferritin and hepatic stainable iron.

These findings suggest that the systematic evaluation of adult family members of patients with iron overload should, as suggested by Feller *et al*,⁴ include a percutaneous liver biopsy with quantitative measurement of liver

iron content. A recent conference on iron metabolism and thalassaemia has accepted the necessity for liver biopsy to evaluate body iron load.⁶

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¹ Wands, J R, *et al*, *New England Journal of Medicine*, 1976, **294**, 302.

² Crosby, W H, *New England Journal of Medicine*, 1976, **294**, 333.

³ Edwards, C Q, *et al*, *New England Journal of Medicine*, 1977, **297**, 7.

⁴ Feller, E R, *New England Journal of Medicine*, 1977, **296**, 1422.

⁵ Parfrey, P S, and Squier, M, *British Medical Journal*. In press.

⁶ *Iron Metabolism and Thalassaemia*, ed D Bergsma, *et al*, p xv. New York, Liss, 1976.

Tourist hepatitis

SIR,—Although a little late, we wish to comment on your leading article on this subject (22 January, p 189) and the subsequent correspondence (30 April, p 1158; 11 June, p 1534). We have evaluated 221 cases of traveller's hepatitis occurring within the Zürich area,¹ of which 80% were in tourists, 7% in businessmen, and the remaining 13% in foreign aid volunteers, other staff abroad, airline personnel, travel agency employees, and alien workers entering Switzerland. HBsAg was found in 53% of the cases presumably contracted in other European countries, the corresponding proportions being 6% for Africa, 12% for the Americas, and 34% for Asia.

The probable places of origin of the hepatitis were compared with the numbers of Swiss immigrants there, as published by the World Tourism Organisation, the Organisation for Economic Corporation and Development, and other sources. This allowed us to extrapolate approximate minimum incidences per entry as follows:

1/50 for overland trekkers to the Middle East;
1/350 for West Africa and Mexico;
1/750 for Algeria, India/Nepal, Indonesia, North-east Africa, Near East (excluding Israel), and South America;
1/850 for Middle East (all travellers);
1/1200 for Morocco and Tunisia;
1/1500 for East Africa, Sri Lanka, Turkey, and Thailand and the rest of the Far East;
1/3500 for Israel and South Africa;
1/9000 for Southern Europe; and
1/150 000 for Northern Europe, Canada, and the USA.

Our rate for Southern Europe is only one third of that reported by Iwarson and Stenqvist.² This may be partly explained by statistical uncertainties within both studies;

possibly differences in the prevalence of hepatitis between Göteborg and Zürich and different national behavioural patterns abroad may have played an additional role.

On the basis of the collected hard data and after consideration of the economic and ethical positions, we decided to recommend that standard immune globulin should be given—if necessary repeatedly—to all trekkers, foreign aid volunteers, and other persons with an adventurous travelling style going to any developing country and furthermore to anybody visiting West Africa or Mexico (for exceptions see below). For all other travellers to areas with an incidence exceeding 1/1500 the duration, style and frequency of travel, eating patterns (oysters, etc), personal risk factors, and indispensability in family and profession ought to be taken into consideration in making the decision. It is our belief that at least for our population such immunoprophylaxis is not indicated for trips within Europe. Nor is it necessary for persons going to areas of the Third World for a very brief duration at an exceptionally high living standard, as is the case for diplomats, airline crews, etc. Prophylaxis with the expensive hepatitis-B hyperimmune globulin must be reserved for special situations.

R STEFFEN

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¹ Steffen, R, Regli, P, and Grob, P J, *Schweizerische medizinische Wochenschrift*, 1977, **107**, 1300.

² Iwarson, S, and Stenqvist, K, *Scandinavian Journal of Infectious Diseases*, 1976, **8**, 143.

Effects of levodopa on "frontal" signs in Parkinsonism

SIR,—The fortuitous observation in a 74-year-old non-demented woman with Parkinson's disease of symptoms attributable to frontal lesions led us to investigate systematically a further series of 37 patients for the following signs: (1) bilateral grasping reflex; (2) inability to reproduce a series of three gestures; and (3) inability to react to an audiovisual stimulus by a defined opposite gesture (it was previously established that the patients understood and remembered the code). None of these signs could be explained by akinesia, apraxia, or a defect of memory, attention, or watchfulness.

Among the 38 patients, 10 presented one or more of these signs. All the patients were treated with a combination of levodopa with a peripheral decarboxylase inhibitor in usual doses. Under treatment nine patients improved. In some of them there was a parallel improvement in the Parkinsonism and the "frontal" signs. In most patients only one or two of the three signs disappeared—grasping reflex in 7 out of 8, failure of gesture reproduction in 3 out of 7, and failure to produce a "coded answer" in 3 out of 5. Since the patients were examined only at four-week intervals it appears likely that the improvement was due to the drug itself rather than to learning through repeated examinations.

This improvement is in contrast with a lack of effect of levodopa found in several patients with frontal lesions (infarcts, tumours) and similar symptomatology in the absence of Parkinsonism. The explanation is not clear. It is possible that these features can be diagnosed and treated with success only during a limited phase of Parkinson's disease, perhaps in relation to the extension of the neuronal loss. On the other hand in some Parkinsonian

Iron metabolism in family with thalassaemia minor and iron overload

Case	Age	Sex	Plasma iron (μmol/l)	Total iron binding capacity (μmol/l)	Transferrin saturation (%)	Plasma ferritin (μg/l)	Liver iron disposition	Liver iron concentration (μmol/100 mg dry tissue)
I	74	M	37	40	93	3593	4	9.8
IIB	46	F	18	55	33	66	0	2.5
IIC	44	M	20	41	49	125	0	10.2
IID	42	M	39	50	78	100	0	7.9

Mean normal liver iron concentration = 1.4 μmol/100 mg dry tissue; normal plasma ferritin = 15–250 μg/l.

Conversion: SI to traditional units—Iron: 1 μmol/l ≈ 5.6 μg/100 ml; 1 μmol/100 mg ≈ 56 μmol/100 mg.