cocci. A raised protein concentration has been recorded up to five years after successful treatment.³ We think that the cryptococcal infection was eradicated.

Comment

The results of treatment of cryptococcal infections with a combination of amphotericin B and flucytosine have been reported.^{2,4} A retrospective study of 111 patients with cryptococcal meningitis treated with amphotericin alone enumerated factors associated with a fatal outcome or relapse.³ Of relevance to our patient was the finding that no patient with a positive blood culture was cured with amphotericin alone; indeed, patients with a positive blood culture usually died during treatment. Our patient had six of the seven factors that have been found to correlate with a fatal outcome—namely, a positive CSF Indian-ink smear, a high CSF pressure, a low CSF glucose concentration, absence of anticryptococcal antibody, a high antigen titre, and underlying lymphoreticular malignancy.

The survival of this patient, who had a positive blood culture at the time of diagnosis, is somewhat remarkable. It can probably be attributed to early diagnosis and to treatment with combination antifungal agents. In retrospect a smaller dose of amphotericin might have been as effective. Utz *et al*² used 20 mg daily and suggested that early diagnosis and institution of treatment may be more efficacious than larger doses or longer courses of treatment.

¹ Medoff, G, Comfort, M, and Kobayashi, G S, *Proceedings of the Society for Experimental Biology and Medicine*, 1971, **138**, 571.

² Utz, J P, *et al*, *Journal of Infectious Diseases*, 1975, **132**, 368.

³ Diamond, R D, and Bennett, J E, *Annals of Internal Medicine*, 1974, **80**, 176.

⁴ Tobias, J S, Wrigley, P P M, and Shaw, E, *Postgraduate Medical Journal*, 1976, **52**, 305.

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Failure of aspirin to prevent postoperative deep vein thrombosis in patients undergoing total hip replacement

Venous thromboembolism is a frequent and well-recognised complication of total hip replacement. The role of aspirin in preventing deep venous thrombosis (DVT) after this operation is controversial. Some authors claim that aspirin exerts no antithrombotic effect,^{1,2} while others report a reduction in the incidence of DVT and pulmonary embolism.³ This study aimed at assessing the effect of aspirin in a group of consecutive patients undergoing total hip replacement.

Patients, methods, and results

Thirty consecutive patients (18 men, 12 women) admitted for total hip replacement were studied for postoperative DVT using the ¹²⁵I-fibrinogen uptake test⁴ and ascending venography,⁴ screening for DVT being carried out daily using the former. Venography was performed on the operated leg between the 14th and 16th postoperative day, unless an isotopic thrombus was detected earlier, in which case venography was carried out at that time.

Venography was performed in the contralateral limb only if the result of the fibrinogen uptake test was positive. Each patient received 600 mg of soluble aspirin twice daily, starting the day before operation, until discharge from hospital. Aspirin was discontinued only if a patient developed DVT which required anticoagulant treatment.

The mean age of the patients was 65 (SD $\pm$ 7.7). On established criteria 13 were considered to be at high risk from DVT; three patients undergoing revision surgery were included in this group. DVT was demonstrated by venography in 24 patients. It occurred in the operated limb in 11, the contralateral limb in four, and both limbs in nine. Femoral vein thrombosis occurred in 13 patients and was extensive in four. DVT was demonstrated by venography in 15 patients before the 9th postoperative day, and between the 10th and 16th postoperative days in the remaining nine. One patient developed troublesome wound bleeding on the 3rd postoperative day. There were no other local or systemic complications attributable to aspirin. In those patients (13) considered to be at high risk, DVT was detected in nine, of whom two developed extensive femoral thrombus.

Discussion

This study shows that aspirin failed to protect patients from thromboembolism after total hip replacement. The diagnosis in every case was based on venography, generally accepted to be the most accurate method for detecting DVT. Hence undoubtedly the high incidence of detected DVT (80%) reflects the true frequency of this complication in this group.

Two other published trials^{1,2} have also concluded that aspirin is ineffective for preventing DVT after this operation. In both, the diagnosis of DVT was based entirely on the results of the fibrinogen uptake test. Nevertheless, when assessed by venography this test is inaccurate for detecting DVT after hip replacement, and thus the results of these two trials are open to criticism. In contrast, a further study,³ in which DVT was assessed by venography carried out between seven and 10 days after surgery, reported that only 36% of patients receiving aspirin prophylaxis developed this complication, and that no patient sustained an extensive femoral vein thrombosis. The striking difference in the incidence of DVT between the patients reported by Harris *et al*³ and those in our study cannot be entirely explained either by the timing of venography or by the exclusion of high risk patients from the former study. Clearly the substantial difference in results of these two studies warrants further investigation.

We conclude, on the basis of a venographically controlled study, that for patients undergoing total hip replacement, prophylaxis against DVT using aspirin in a dose of 600 mg twice daily is ineffective.

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¹ Dechavanne, M, and Vile, D, *Haemostasis*, 1975, **4**, 94.

² Schondorf, T H, and Hey, D, *Haemostasis*, 1976, **5**, 250.

³ Harris, W H, *et al*, *Journal of Bone and Joint Surgery*, 1974, **56A**, 1552.

⁴ Kakkar, V V, *Milbank Memorial Fund Quarterly*, 1972, **50**, 206.

⁵ Harris, *et al*, *New England Journal of Medicine*, 1975, **292**, 665.

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Correction

Antithrombin III deficiency . . .

We regret that in the case report by Dr O H B Gyde and others (11 March, p 621) the antithrombin III levels should have read: (0.07 g/l compared with the normal range in serum of 0.20-0.35 g/l) . . ., and seven were found to have low antithrombin III concentrations (0.07-0.10 g/l).