

developed a severe hepatitis and never subsequently reverted to his previous good health. Nevertheless, he continued after his retirement to take three outpatient sessions a week until immediately before his death. Then, in June 1976, he contracted an "influenza-like" infection, was admitted to hospital but did not rally, and died three days later.

John Pugh was thus probably the first person to have shown unequivocally that, with modern treatment, even severe Addison's disease is compatible with a lifetime of normal activity. He was lucky in that he did not develop the disease before effective drugs were beginning to be devised. Had he done so he could hardly have survived for six months. But the major credit for the outcome belongs to him. By using his common sense (with which he was exceptionally well endowed)

he adjusted his regimen to his needs. Thereby he was enabled to live a full life in every sense of the word. But, as every doctor knows, success or failure in treating a condition that poses a continuing threat of disaster depends largely on the patient's attitude. And behind all John Pugh's humour, good fellowship, and panache lay an ability to face facts without flinching and to take adversity in his stride. It was this more than anything else that enabled him to triumph over his circumstances and preserve his personality intact.

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SHORT REPORTS

¹²⁵I-fibrinogen uptake test

The development of research into postoperative venous thrombosis owes much to the ¹²⁵I-fibrinogen uptake test. Its accuracy in detecting thrombi compares well with that of venography, the correlation being over 90% when applied to "major" general surgical cases (though patients undergoing leg surgery were excluded).¹ More recently, the ¹²⁵I-fibrinogen test has been used in detecting deep vein thrombosis after leg surgery, and high positive rates of between 37%² and 75%³ have been shown after hip surgery (excluding the operative zone, which itself produces false-positives). Although many studies have also included venography, little has been published on a direct comparison between the ¹²⁵I-fibrinogen test and venography after leg operations. Barrie *et al*, however, found confirmatory venographic evidence of thrombosis in only 53% of limbs with a positive ¹²⁵I-fibrinogen uptake after hip fracture.⁴

Patients, methods, and results

In a study of 40 patients who had undergone total hip replacement in Gartnavel General Hospital, Glasgow 77 limbs were examined using both ¹²⁵I-fibrinogen and venography. ¹²⁵I-fibrinogen 100 μ Ci was injected on the day of operation. The Pitman 235 Ratemeter was used to take readings of the counts (%) at seven points on each leg, ankle to mid-thigh. The counts were taken one, two, three, five, seven, and nine days after operation with the bed-end raised. A positive result occurred when the count rose 20% above the praecordial count for two days on the same spot or 20% above the count on the corresponding spot on the other leg. Bilateral ascending venography was carried out between days 6 and 9, radiological interpretation of the venogram being carried out in ignorance of the result of the ¹²⁵I-fibrinogen test.

Of the 77 limbs, 40 had a negative fibrinogen test result, and all showed a normal venogram. Of the 37 limbs positive on the fibrinogen test only 24 had confirmatory venographic evidence of thrombosis.

Comment

Among the 13 limbs in which venographic and fibrinogen results did not agree only five were on the operation side. This would suggest that the operation by itself was not a major cause of the discrepancy. Furthermore, the discrepancy did not occur only over the calf veins, where venography may be less accurate; in six cases the uptake test gave a positive finding above the knee. While the ¹²⁵I-fibrinogen uptake test may indeed have been detecting thrombosis in the smaller venous tributaries of the thigh, no thrombi were ever seen in the popliteal or superficial femoral veins, or in the mouths of the profunda veins. Interpretation of such a venogram would surely not encourage the clinician to offer any treatment.

This means either that the ¹²⁵I-fibrinogen is too sensitive or that the venogram is too insensitive. We are tempted to suggest, however, that a thrombus that cannot be seen on venography is not worth preventing

or treating, as it is either very small or confined to a calf vein. It would be interesting to know if this pattern is confirmed by others. If it is, the ¹²⁵I-fibrinogen test is really being used as a screening procedure for venography. Certainly, with such a high "false-positive" rate, estimates of venous thrombosis after hip surgery cannot be made by using the ¹²⁵I-fibrinogen uptake test, and confirmatory evidence by venography should always be sought. On the other hand a negative fibrinogen test result alone would seem to be strong evidence that thrombosis has not occurred.

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Malignant pheochromocytoma with severe constipation and myocardial necrosis

Pheochromocytoma accounts for under 1% of all cases of hypertension.¹ The quoted incidence of malignancy varies according to the diagnostic criteria but is probably about 3% of all pheochromocytomas.¹ We describe here a patient who presented with skeletal metastases and the unusual feature of obstinate constipation.

Case report

A 54-year-old woman complained of pains in the back, chest, limbs, severe constipation, anorexia, and weight loss, with a tendency to excessive sweating. Examination showed a sinus tachycardia; blood pressure 240/130 mm Hg; tenderness over the thoracic spine and ribs; and a rectum loaded with hard faeces.

The erythrocyte sedimentation rate was 76 mm in 1 h, and serum calcium concentration was 2.8 mmol/l (11.2 mg/100 ml). Albuminuria but no glycosuria was present. Radiographs showed a translucent area in ribs and thoracolumbar spine; intravenous pyelograms, initially thought to be normal, in retrospect suggested a lesion distorting the right renal pelvis from