sheath of one of the intercostal nerves, but the very high C.S.F. protein figures and the complete lack of recovery of reflex function below the level of the lesion suggest that extensive necrosis of the spinal cord occurred. Such widespread damage cannot reasonably be attributed to the small amount of efocaine which could have entered the spinal cord via the perineural sheath.

The clinical picture and C.S.F. changes can be explained on the basis of necrosis through interference with the blood supply of the spinal cord. The injection of efocaine close to an intercostal vein might have produced thrombosis which spread into the spinal cord and caused intramedullary thrombosis with necrosis. This view is supported by the necropsy findings in the patient reported by Angerer *et al.* (1953). Forty-four hours after the injection of efocaine they found that the intercostal vein immediately beneath the needle puncture was acutely inflamed and filled with recent thrombus. The spinal cord itself showed extensive necrosis, with evidence of acute inflammation.

The mode of action of efocaine has been reinvestigated by Mannheimer *et al.* (1954), and they have shown that the substance produces necrosis of both nerve and muscle of similar severity to that caused by the injection of alcohol and phenol. These findings, together with the published reports of gross neurological damage, lead to the conclusion that the clinical use of efocaine is no longer justifiable.

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Medical Memoranda

Long Survival in Renal Carcinoma

There are many gaps in our knowledge of the natural life history of malignant tumours, and renal cancer seems to be particularly unpredictable. In the patient we are here reporting, at least a quarter of a century elapsed before the disease caused death, and treatment was refused for a decade after the tumour was clinically apparent.

CASE REPORT

In 1930 a Jewish business man, aged 31, began to experience pain in the left flank and haematuria. The pain was episodic until 1934, when its severity so increased that he sought admission to hospital. A mass was then discovered in relation to the left kidney, of such a size that it caused obvious deformity of the stomach on radiological examination.

Surgical treatment was strongly urged, but the patient stubbornly refused to submit to operation until 1943. The operation disclosed a rounded tumour which replaced the lower pole of the kidney and was "much larger than the renal tissue proper." There was no involvement of the renal vein, or any evidence of metastases. Nephrectomy was carried out.

Pathological examination of the tumour by the late Colonel Harvey showed the tumour to be a glandular carcinoma (hypernephroma) of clear cell type. Its structure was unusually glandular, and of the small alveolar and tubular type rather than the larger and more cellular masses more common in this tumour. There was considerable polymorphism of the cell nuclei, suggestive of degenerative forms. Though mitotic activity was not recognized, the tumour had spread into the fibrous tissue separating the growth from the kidney. In some areas haemorrhage and necrosis were marked.

The patient remained relatively well until 1949, when he began to complain of vague abdominal discomfort. Sundry investigations were negative; but in 1952, when he came under our joint care, there was a mass in the left flank and some enlargement of the liver. Barium enema revealed a filling defect suggestive of extrinsic pressure in the descending colon, and a radiograph of the chest showed a rounded opacity in the right mid-zone. As much for diagnostic as therapeutic reasons, he was advised to undergo laparotomy.

At operation extensive malignant disease was found throughout the abdominal cavity, including a large fixed mass involving the descending colon and the adjacent part of the posterior abdominal wall. Numerous secondary growths were present in the liver, including a massive growth in the left lobe. It was found practicable to remove the pericolonic tissue and so relieve the obvious obstruction.

Histological examination showed the tissue to be metastatic hypernephroma. There was a remarkably good immediate recovery, and he was able to return to the business he had conducted so successfully throughout the years; thereafter his condition deteriorated; but in spite of the extensive metastases he survived for another two years, and died in September, 1954.

COMMENT

It is notoriously difficult to forecast the expectation of life in patients with renal tumours. Herbut (1952) has stated that symptoms and signs may be prolonged up to 35 years; and Griffiths and Thackray (1949) reported a 10-year survival rate of 21% after nephrectomy. The "best" American figures—those of Priestley (1939) at the Mayo Clinic—record a 10-year survival in 27.3% of 395 cases. Nevertheless, survival for 25 years despite the well-substantiated existence of renal carcinoma, as in the present case, seems to us most exceptional. Possibly the phenomenon was thrown into sharper relief by a number of contemporary cases in which the course was very rapid.

The corollary is obvious—that great caution must be exercised in venturing a prognosis in renal tumours, both with and without operation, and that even greater caution is needed when claims are made for the efficacy of treatment.

We are indebted to Dr. Alister Matheson for letting us have access to his careful records regarding this patient.

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Case of Bilateral Calcification of the Breasts

The deposition of calcium in the soft tissues of aged subjects is not uncommon, particularly in those parts where fibrous tissue normally predominates. In the breast, fibrous tissue is laid down in varying amounts after the menopause; only very rarely, however, does it go on to calcification so extensive as to be detectable both clinically and radiologically. The following is a case discovered accidentally shortly before the patient's death.

CASE RECORD

A woman aged 85 was admitted to hospital with a three-weeks history of pain in the left groin. Her private practitioner suspected the presence of a fatigue fracture of the neck of the left femur, no history of trauma being elicited. This was confirmed radiologically. Examination of the