Medical Memoranda

The "Artificial Wrist" (Intentional Pseudoarthrosis in Colles's Fracture)

Non-union very rarely occurs in Colles's fracture. Watson-Jones (1941) and Hamada (1944) each reported a case. In both cases non-union presented a problem for which a suitable answer had to be sought. In the first case non-union occurred after a simple comminuted fracture which could not be properly immobilized; the second case was an old septic compound fracture. In managing both these cases the aim was naturally to establish union (National Research Council, 1943). The following case is presented to show that non-union is not always an evil, but may, on the contrary, be very desirable.

CASE REPORT

In 1947 a 28-year-old man, while trying to start a car, held the handle with both hands. After a few turns the engine started, but he could not take the handle away quickly

FIG. 1

FIG. 2

enough. It hit his left hand at the wrist, pushing it dorsally, and caused a compound Colles's fracture, with a wound on the flexor surface through which the lower end of the upper radial fragment protruded. As a matter of first aid, the hand was pulled on to replace the protruding radius. Seven hours elapsed before the patient could receive medical treatment. Infection supervened, and four days later the hand and fingers became so swollen that the plaster had to be removed. The wrist was incised and splinted, and three months later, when I first saw him, the condition was as follows:

The wrist was radially deviated and the lower end of the ulna was correspondingly prominent. There were two small dorsal longitudinal wounds and a volar transverse one, all of which were septic. There was movement at the fracture site but no movement at all at the wrist, which was fixed in a straight line with the forearm. This was completely fixed in pronation, and no rotation at all was possible. Finger movements were normal, but the grip was very weak. Radiological examination showed bony ankylosis of the radio-carpal and intercarpal joints and non-union of the fracture. The ends of the two fragments were partially sclerosed. A

small gap was seen in which were a few sequestra. There was radial deviation of the lower radial fragment which carried with it the wrist and hand.

Light curettage of the sinuses was carried out to remove the sequestra, and after five weeks the infection had subsided and the wounds were dry. Because the wrist was ankylosed by bone in a straight line with the forearm, it was decided to encourage non-union of the fracture. Splinting was discontinued and movements were encouraged. Infection did not flare up and non-union became established. To get the maximum dorsiflexion and to facilitate rotation of the forearm, the lowermost inch of the ulna was removed (Baldwin's operation). A month later the patient went back to work as a laboratory assistant.

Five years after the injury the hand had not given any further trouble, nor did the "artificial wrist" interfere with the patient's work. There was no pain whatsoever, and the grip was quite powerful. About 40 degrees of dorsiflexion was present, all at the "artificial wrist" (Figs. 1 and 2). Rotation was possible for about 110 degrees, enough to allow for all his needs.

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Fibrosarcoma of Bronchus Treated by Pneumonectomy

Fibrosarcoma arising primarily in the lung is very rare and its origin in a bronchus quite exceptional. Ball (1931) found only two cases of primary fibrosarcoma of the lung in the literature up to 1931—neither of them bronchogenic. Mallory (1936) found one lung fibrosarcoma in 8,000 necropsies at the Massachusetts General Hospital, but three others have since been reported (Massachusetts General Hospital, 1938a, 1938b, 1945). Ochsner *et al.* (1947) reported two more, but origin from the bronchus was not mentioned in any of these. The first case of fibrosarcoma of the bronchus described was from the Massachusetts General Hospital (1938b), and Pollak *et al.* (1939) published a further case. Pollak *et al.* found only one previous case of sarcoma of the bronchus diagnosed bronchoscopically—a case of Herrnheiser quoted by Baum *et al.* (1938).

Baum *et al.* (1942) treated a case by bronchoscopic removal and x-ray therapy, with subsequent fatal recurrence. The Massachusetts General Hospital patient died of haemorrhage during attempted removal, but the patient of Pollak *et al.* was well three years after local removal.

More recently three cases of bronchogenic fibrosarcoma have been described. Carswell and Kraeft (1950) found a fibrosarcoma of the bronchus in a 29-year-old man whom they successfully treated by pneumonectomy in 1948. The only follow-up examination described was seven and a half months after operation. Black (1950) carried out a pneumonectomy in 1941 on a 46-year-old woman for a fibrosarcoma diagnosed bronchoscopically. The patient remained well for nearly six and a half years, then the tumour reappeared in the mediastinum with rapid deterioration and death. Curry and Fuchs (1950) reported the case of a patient aged 13 who in 1944 coughed up a tumour which on section was shown to be a fibrosarcoma. Bronchoscopic examination revealed no residual tumour and the patient was well four years later.

It would seem that only five cases of indisputable fibrosarcoma of the bronchus have been described up to date. In view of this we feel justified in reporting the following case.

CASE REPORT

A girl aged 5 was taken ill in December, 1952. She complained of coryza, and there was pyrexia which failed to clear up after six weeks' treatment at home; she was then admitted to hospital under the care of Dr. White Jones. At that time there were physical signs of collapse at the