SUBTOTAL REMOVAL OF THE SCAPULA FOR ANEURYSMAL BONE CYST

E. S. James, Winnipeg, Manitoba, Canada

An otherwise healthy girl, ten years old, first complained of pain and swelling in the right scapula in June 1953. There was no interference with function of her shoulder or arm. Radiographs gave evidence of an expanding cystic tumour in the body of the scapula. All other investigations showed no abnormality.

The lesion was explored. The cyst was opened, curetted and filled with bone chips. It contained a thin sanguineous fluid and a scanty lining membrane. This presented the histology of a benign giant-cell tumour, with large thin-walled spaces filled with blood and some areas of new-bone formation (Fig. 1). The walls of the septa between the cyst spaces were fibrous.

![Figure 1](image)

**Fig. 1**
Section showing large thin-walled spaces filled with blood. There are groups of giant cells and areas of new-bone formation. The septal walls are fibrous and devoid of muscle fibres.

All seemed well until a year and a half later, when pain recurred and began to keep her awake. The scapula became swollen and tender, and shoulder movements were restricted. Radiographs now showed absorption of the bone chips and a large cystic lesion extending into the neck of the scapula (Fig. 2).

At re-operation, with the patient prone under general anaesthesia, the scapula was exposed through an inverted L-shaped incision. All muscles attached to the margins and back of the scapula were separated subperiosteally. The tip of the acromion was not involved in the lesion, and was therefore not removed, but the whole of the rest of the bone was excised.

The wound healed rapidly and almost normal shoulder movements were regained. There was no important deformity (Fig. 3).

On section, the excised scapula was seen to be expanded by many thin-walled fibrous
FIG. 2
Radiograph just before excision of scapula. The expanded bone contains large cystic spaces.

FIG. 3
The patient after excision of the scapula. Deformity is only slight.

FIG. 4
Syme’s original case (1856) to compare with the author’s. (From Coley’s Neoplasms of Bone.)
cysts (Fig. 5). These had eroded the overlying bone in several places. The histology was that of an aneurysmal bone cyst with areas of haemorrhage, giant cells and new bone formation (Jaffe and Lichtenstein 1942).

![Fig. 5](image)

**COMMENT**

Partial or complete removal of the scapula is an uncommon operation. Although its first performance is attributed to Syme (quoted by Paterson, 1874) in 1856 (Fig. 4), Cuming had already removed the scapula with the entire forequarter in 1808 and Luke had excised three-quarters of the scapula in 1828 (Keevil 1949).

**REFERENCES**


