

giant cell tumour in patella must be extremely rare. The last case was reported in 1976. We would like to present this case as one more to add to the literature.

In summary we would like to present a rare case of giant cell tumour of the patella being 32nd in the literature, and 11th in the last 40 years, during which time there appears to have been a better understanding of the strict histopathological criteria for inclusion as a giant cell tumour.

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normal skin temperature over it, and did not fluctuate. The knee joint movements were normal and free.

A radiograph (Fig.1) taken at the time showed an expanded osteolytic lesion occupying most of the patella with a peripheral shell of residual bone which was sclerotic. Her Hb was 13g/dl. Total WBC count 8200/cu mm with a normal differential leucocyte count and an ESR of 32 mm in the first hour. Serum calcium 9 mg/dl, and alkaline phosphatase 22 KA units/ml.

At exploration the lesion was found to be confined within the patella, with no extension into the soft tissues. The entire patella was removed and the ligament repaired.

The excised specimen shown transected in Fig. 2 was 8 cms long. It was soft and could be cut easily with a knife. The cut ends showed reddish yellow patches which were haemorrhagic with areas of necrosis.

The specimen was submitted for histology (Fig. 3) and was reported on as follows:

"Specimen from the resected patella shows a mass of 8 cms x 3 cms in area, consisting of solid brownish tissue. Sections show spindle cells with numerous giant cells of osteoclastic type. Appearances are suggestive of a giant cell tumour. In some areas the stromal tissue has a histiocytic appearance. Some small vascular cysts are present and the lesion contains a considerable amount of haemosiderin pigment. Diagnosis: GIANT CELL TUMOUR."



Fig. 2. The excised patella.

Because of the rarity of the tumour at this site, the slides

were sent to the Royal National Orthopedic Hospital where the diagnosis was confirmed.

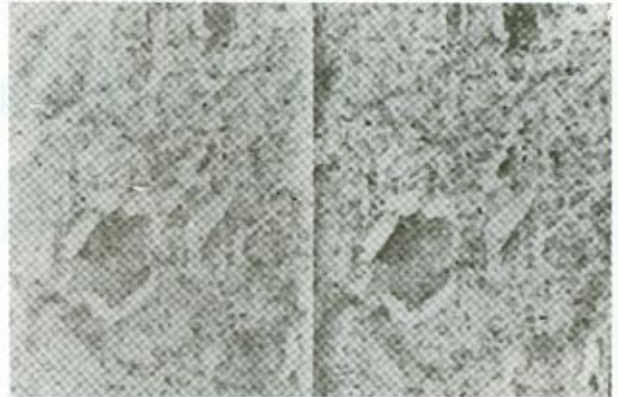


Fig. 3. Histopathology.

DISCUSSION

Giant cell tumours invariably originate from the epiphysis. Patella does not possess an epiphysis being a sesamoid bone. Hence it is difficult to explain its occurrence in this bone. Some authorities do regard the patella as possessing a metaphysis as well as an epiphyseal plate which is the innermost area of the patella. Pringle et al⁵ considers all sesamoid bones as epiphysis. Alexander et al⁶ suggest the giant cell tumours are the result of the failure of the negative feedback control on normal osteoclastic remodelling which occurs in the metaphysis of any growing bone at any cartilage junction. Pringle also considers the patella to be, functionally, a metaphysis since the deepest layers of its surrounding cartilage shell is a radially oriented growth plate where cartilage growth is vectored.

The role of trauma is uncertain. It must be remembered that trauma may give rise to reparative granulomas with preponderance of giant cells which can be mistaken for a giant cell tumour. The reader is referred to the excellent description of giant cell tumours in Atlas of Tumor Pathology⁷, for diagnostic criteria.

The frequency of cases reported prior to 1945 seems high and this may be due to the fact that the strict criteria now laid down for such a histological diagnosis were not observed; also the nomenclature was confusing. If the diagnostic criteria are observed then the occurrence of

CASE REPORT

Giant Cell Tumour of Patella

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ABSTRACT

Giant cell tumours account for 4% of all bone tumours. Such tumours almost invariably arise from epiphysis of the long bones, and rarely from flat bones. The giant cell is almost ubiquitous in many bone lesions and therefore a lesion should not be identified as a giant cell tumour unless it meets strict clinicopathological criteria. Jaffe¹ felt that those reported from the mandible and maxilla were reparative giant cell granulomas. It is extremely rare in the vertebrae, occasionally occurs in the tarsals, trochanters and iliac crest and is rarer still in apatella.

In Dahlin's² Series of 155 (1967), there were none reported in the patella while Mnaymneh³ (1964) reported one out of forty-one and Schajowicz⁴ (1961) one out of eighty-five osteoclastomas as occurring in the patella.

We would like to present a case which was histologically diagnosed as a giant cell tumour of the patella and is free of metastases five years after surgery.

Key Words: Bone tumours — giant cell tumours — primary patellar tumours.

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CASE REPORT

A female patient W.N. aged 50 years presented with a painful swelling in front of the knee joint in 1977, stating that it had been present for five years and was gradually increasing in size. Examination revealed a large, soft swelling of the patella, 8 cms in diameter which had a



Fig. 1. Radiograph of the Knee Joint.