Chondrosarcoma of femur and ilium

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Chondrosarcoma of femur and ilium

Clinical History

A teenage boy presents with groin pain after horse-riding. Examination revealed a large, deep lump. Following biopsy and imaging, the diagnosis of chondrosarcoma was made and a radical surgical resection of his right leg was performed.

Pathology

The specimen consists of the upper end of the femur and its articulation with the pelvis. Within the neck and head of the femur and replacing most of the ilium there is a lobulated pale grey tumour with areas of cavitation, necrosis and haemorrhage. The tumour is extending out beyond bone into the surrounding soft tissues and appears encapsulated. The presence of infiltration, necrosis and haemorrhage are macroscopic features of malignancy.

Further Information

Chondrosarcoma is a primary malignant bone tumour with cartilaginous differentiation. It is a rare cancer that accounts for about 20% of bone tumours. The only available treatment is excisional surgical resection since the current adjuvant treatments are ineffective. The pelvic location creates specific technical difficulties both for exeresis and reconstruction.

The disease usually starts in the bones of the arms, legs or pelvis, but it can be found in any part of the body that contains cartilage. Sometimes chondrosarcoma grows de novo form an otherwise healthy bone; however, sometimes it may arise from a benign bone tumour (an enchondroma or osteochondroma).

There are several subtypes of chondrosarcoma, named based on their microscopic and genetic characteristics. These include: conventional chondrosarcoma; Clear cell chondrosarcoma; Myxoid chondrosarcoma; Mesenchymal chondrosarcoma; Dedifferentiated chondrosarcoma.