Chondrosarcoma

Introduction

- Chondrosarcoma is a malignant tumour with cartilage differentiation.
- The biological spectrum is very wide.
- It ranges from very low-grade lesions to highly aggressive differentiated tumours.

Epidemiology

- Commonest in older patients (30–75y).
- More common in males
- Peak incidence- 5th to 6th decades
- Most common place- Pelvis (30%), Proximal femur (20%)

Associated With…

- Genetic alterations
- Ollier's disease- enchondromas
- Maffucci syndrome enchondromas
- Hereditary multiple exostosis

Pathology

- Usually occurs in a flat bone, e.g. Ilium of Pelvis, Ribs, Scapula.
- Location of presentation gives clues to type (scapula malignant and hand benign).
- May present de novo or arise from a pre-existing osteochondroma.

Pathology

- Graded. Low to high (1, 2, 3, undifferentiated); 60% present grade 1.
- Metastasis is not common and is via blood.
- Local invasion is more usual, but is normally slow growing. High grade present with bone destruction and soft tissue mass

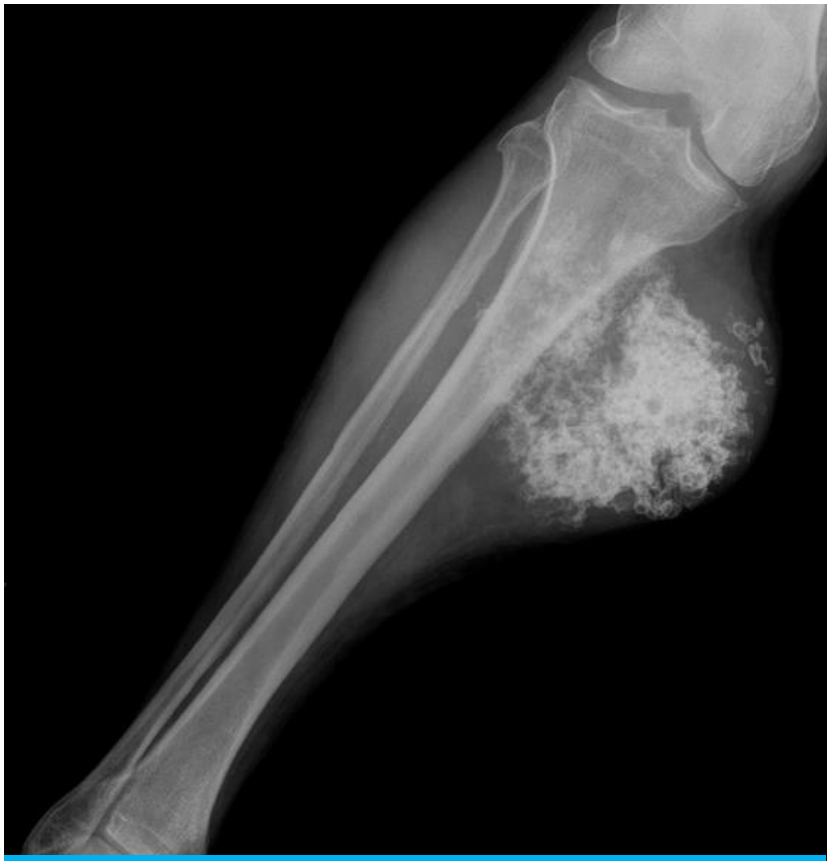
Clinical Features

- Clinically, the presenting symptom is pain and or swelling.
- Symptoms are often longstanding.
- Radiological and pathological correlation is particularly important in the evaluation of this condition.
- Clear cell chondrosarcoma is a rare form of chondrosarcoma that occurs in the epiphysis

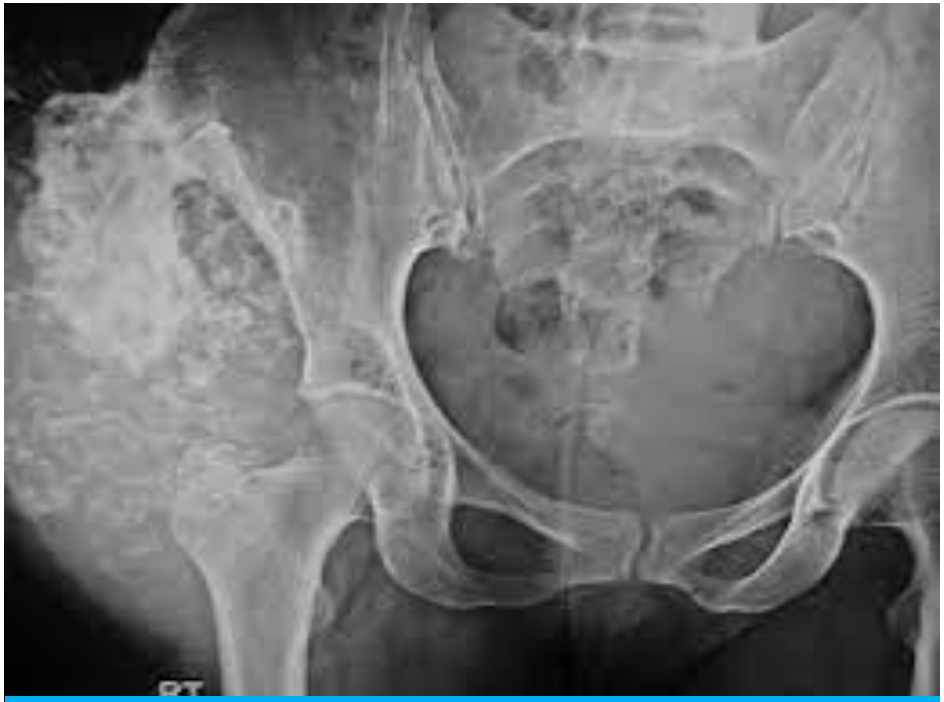
Typical Radiological Features

- Central lucency
- Matrix ‘pop corn’ calcification
- Cortical scalloping

Radiological Appearance



Dedifferentiated Peripheral Chondrosarcoma



Large Chondrosarcoma of the Pelvis

Treatment

- Low grade require wide resection. Local recurrence 20% at 10y.
- High grade require wide resection ± amputation.
- No real role for chemo- or radiotherapy unless undifferentiated or elderly).

Treatment

- Not usually respond to Chemo & radiotherapy.
- But Chemotherapy is used for Metastatic spread and Radiotherapy for Local spread

Prognosis

5 years survival dependent on grade.

- Grade 1, up to 90%;
- Grade 2, 60–70%;
- Grade 3, 30–50%;
- Undifferentiated, 10%.