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- A 13-year-old male; 2 months history of mild joint pain, tenderness, swelling and limited ROM
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- **What are the D/Diagnoses?**
- **What investigations would you arrange next?**

- X-rays: Lytic expansile mass arising in the metaphysis
- There is no evidence of a soft tissue mass or periosteal reaction.
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- The CT scan There is a large soft tissue mass within an expanded distal femur.
- The lesion across the growth plate into the epiphysis of the lateral femoral condyle.

The appearances are suggestive of a benign lesion

- The next line of investigation is MRI. The lesion has well-defined margins. There is some oedema within the shaft of the femur proximally. Given the involvement of the growth plate and marrow oedema, the lesion is more likely to be an aggressive lesion
- The histology suggests that this lesion is a CMF [Chondromyxoid fibroma]
- The differential for this lesion includes
  - (1) **E**nchondroma, **E**osinophilic granuloma **F**ibrous dysplasia, **F**ibrous cortical defect, **G**iant cell tumor
  - (2) Simple bone cyst.....2 cysts
  - (3) Aneurysmal bone cyst
  - (4) Nonossifying fibroma .....2 Fibroma
  - (5) Chondromyxoid fibroma
  - (6) Chondroblastoma.....2 Blastomas
  - (7) Osteoblastoma

Always consider Brodie's abscess in all benign cystic lesion.

No touch lesions [Biopsy not required]

Fibrous cortical defect, Fibrous dysplasia, Simple bone cyst, Enchondroma [in the small bones], NOF

More aggressive benign tumors:

GCT, CMF, CB, ABC Need biopsy

- Treatment
  1. No treatment: Fibrous cortical defect, Fibrous dysplasia, Simple bone cyst, Enchondroma [in the small bones], NOF
  2. Curettage and bone graft
  3. Very aggressive benign like ABC: Curettage + Liquid Nitrogen + bone graft +/- Fixation