

## Culture All Tumour, Biopsy All Infection – a case report

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### INTRODUCTION:

There will always be a challenge in differentiating between tumour and infection in radiological imaging as the appearance can be similar and clinical history can be deceiving. In a highly suspicious imaging, one of the differential diagnosis besides infection should include malignant tumours. Thus, in such cases, the surgical approach and management must be made carefully.

### REPORT:

A case of 14 years old, boy presented November last year with painful swelling of left proximal leg which progressively increasing in size within 2 months. He had history of fracture at proximal left tibia and underwent plating in 2020 followed by removal of plate in February 2022. Initial xray showed osteomyelitis changes of the tibia and lucency at previous screw insertion. CT showed enhancing extraosseous soft tissue lesion with intramedullary extension, and cortical reaction which was reported as chronic osteomyelitis with a differential diagnosis of osteosarcoma. Eventually, he underwent incision and drainage of leg and bone curettage of the proximal tibia and samples were sent for cultures and HPE. The incision site was done and planned according to future possible surgical incision. Unfortunately, HPE turned out as highly aggressive osteosarcoma. He is currently on ongoing neoadjuvant chemotherapy and planned for wide resection and endoprosthesis of proximal tibia later.



Figure 1 : xray of left tibia.



Figure 2: CT of left tibia

### CONCLUSION:

Distinguishing between osteomyelitis and malignant bone tumour can be difficult and is important in order to get a proper management for the patient. MRI and laboratory investigations can help in getting the correct diagnosis. However, there are cases reported, where accurate diagnosis was also difficult with MRI and some bone tumour may showed elevated CRP. Hence, it is recommended that initial biopsy or culture taken should be performed following the principle, for accurate diagnosis.

### REFERENCES:

1. Huang et al, World Journal of Surgical Oncology 2013; 11: 283
2. Moser et al, Diagnostic and Interventional Imaging (2012) 93