

## CASE REPORT : PEDIATRIC SKELETAL LANGERHAN CELL HISTIOCYTOSIS OF RADIUS BONE, MIMICKING OSTEOMYELITIS

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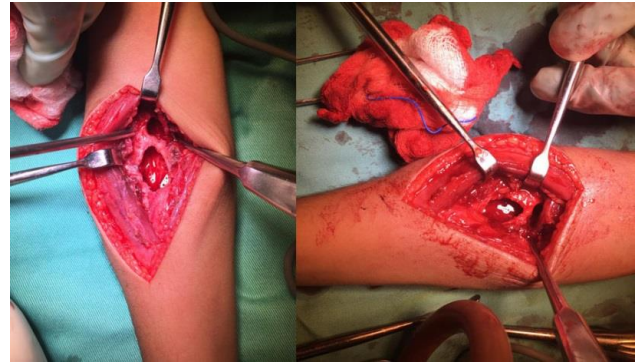
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### INTRODUCTION

Skeletal LCH has a very vague presentation. Their presentation mimicking osteomyelitis. We report a case of 6 year boy with skeletal LCH that was missed interpret as osteomyelitis.

### CASE REPORT

A 6 years old boy who came to us one week after a history of fall with complaint of right forearm pain and swelling. Clinically, there is swelling over proximal forearm and tenderness was elicited from the swelling. Blood investigations revealed normal white blood cell (WBC) count but significantly high c-reactive protein (CRP) and erythrocyte sedimentation rate (ESR). The right radius and ulna x-ray showed multiple intramedullary cystic lesion involving meta-diaphysis of the radius with ill-defined margin and surrounding periosteal reaction. He was treated as osteomyelitis of the right radius with antibiotic. Serial x-rays did not show any sign of regression of the initial lesion. He was then posted for debridement of the right radius. Intraoperatively there 4 lytic areas within radius bone, filled with greyish soft tissue. The HPE came back as Langerhans cells.



Intraoperative images

### CONCLUSION

Skeletal LCH cells affects mostly children. Usual presentation are pain, tenderness are related to the affected bone associated fever and slightly increase in infective marker. Clinical judgement may point towards infection such as osteomyelitis.

Skeletal LCH demonstrate bony destruction with ill-defined margin with or without reactive sclerosis. MR imaging is very sensitive to detect lytic lesion and adjacent bone marrow, periosteum and soft tissue oedema. Definitive diagnosis is confirmed by biopsy.

Mild solitary bone lesion has been shown to heal spontaneously. Integrated approach of treatment with combination of surgical curettage, radiotherapy and chemotherapy or multi agent chemotherapy has shown to produce good response and significantly reduces recurrences.

### REFERENCES

1. E. Satter, W. High. "Langerhans cell histiocytosis: a review of the current recommendations of the Histiocyte Society."
2. E. Azous et al. "Langerhans' cell histiocytosis: pathology, imaging and treatment of skeletal involvement."



Osteolytic lesion on radiograph