

# Primary Bone Lymphoma of The Humerus in a Teenager

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## INTRODUCTION:

Primary bone lymphoma is a rare presentation of extranodal lymphoma. 80% of the cases are diffuse large B cell lymphoma. Here, we report one rare clinical presentation of primary bone lymphoma involving the humerus in a 16-year-old teenager.

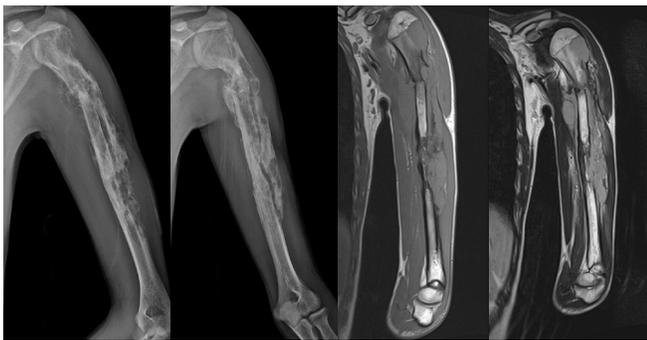
## REPORT:

16-year-old teenager presented with pain and swelling over his left arm after he tried to perform dip press.

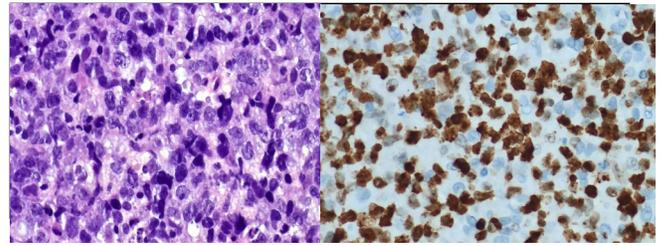
X-ray of left arm showed an expansile lytic sclerotic lesion from humeral head to the distal third of the shaft with proximal shaft of left humerus fracture. Magnetic resonance imaging showed an aggressive lesion within the humerus extending into soft tissue and glenohumeral joint.

Open biopsy was done. Histopathological examination showed round cell tumour, positive for CD20, CD79a, CD10 (>30%), BCL-6 and negative for CD3, CD30, ALK, TDT with high Ki67. Final diagnosis was diffuse large B cell lymphoma of left humerus.

The fracture united with conservative treatment. The patient was referred to the hematological team for further treatment.



**Figure 1: Radiograph and MRI images**



**Figure 2: Histopathological images**

Primary bone lymphoma is defined as single skeletal lymphoma with or without regional lymph node involvement.<sup>1</sup> It is rare (<5%). It occurs in age from 20-50 years old.<sup>1</sup> The common site of involvement is femur (29%), pelvic (19%), and humerus (13%).<sup>1,2</sup>

Diagnosis should be established by biopsy because specific radiographic feature is absent. It mimics Ewing's sarcoma, osteosarcoma, and osteomyelitis.<sup>2</sup>

The treatment is chemotherapy.<sup>2</sup> This disease has a good prognosis with overall survival rate at 5 years is 91%.<sup>2</sup>

## CONCLUSION:

Primary bone lymphoma is a rare bone tumor. Biopsy should be performed to establish diagnosis. Chemotherapy remains mainstay of treatment.

## REFERENCES:

1. Batia et al., Primary bone lymphoma in axial skeleton in a middle-aged female presented as recurrent anemia. *Case Rep Oncol* 2020;13:276-280.
2. Tajinder et al., Primary bone lymphoma: A report of 2 cases and review of the literature. *Journal of cancer research and therapeutics* 2010;6(3):296-298