Mesenchymal Chondrosarcoma In A 10 Years Old Boy – A Case Report

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INTRODUCTION:

Mesenchymal chondrosarcoma (MC) is an aggressive small round blue cell malignancy which usually presents in the 2nd to 3rd decade of life. It may arise from bone or soft tissue. The rarity of this histologic entity has made it difficult to analyze the natural history and best therapeutic options for patients. We report a case of a 10 years old boy whom was diagnosed with MC.

REPORT:

A 10 years old boy with underlying attention deficit hyperactivity disorder, presented with complaint of progressively left hip pain for 2 months associated with on and off fever and limping upon ambulation. He also had loss of weight (3kg) and loss of appetite for 1 month. Radiograph of left hip showed lytic lesion over proximal femur with periosteal reaction and cortical breach. CT TAP showed lower limb deep vein thrombosis, no distant metastasis. MRI revealed irregular expansile lesion within metadiaphysis of left proximal femur with cortical breach and adjacent soft tissue involvement. Patient subsequently underwent trucut biopsy and histopathological examination (HPE) result confirmed mesenchymal chondrosarcoma. He was started on anti-coagulant and planned for neoadjuvant chemotherapy and later for definitive surgery.

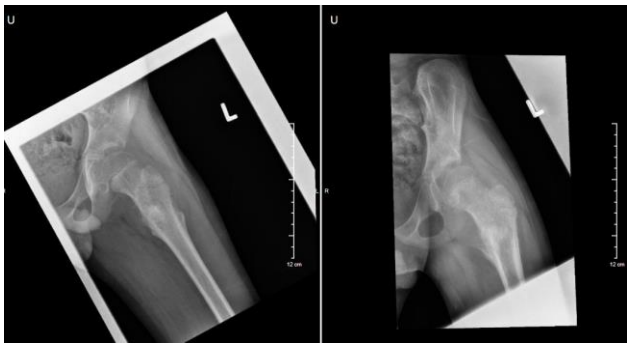

Figure 1: Radiograph of left hip

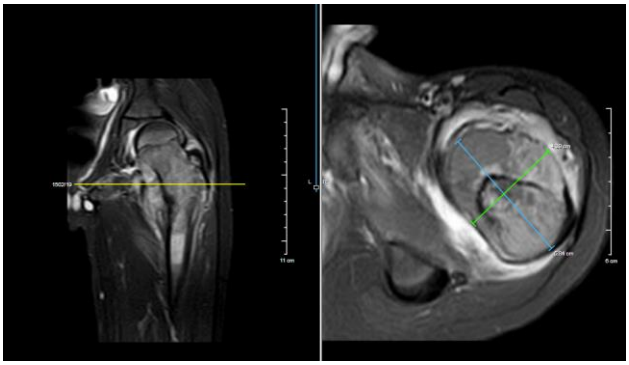

Figure 2: MRI right hip

Discussion:

5-years survival rate of MC is around 55% and almost 20% of the cases had metastatic disease at diagnosis. The final diagnosis is challenging and a biopsy is necessary to confirm the diagnosis. Immunohistochemistry staining is used to differentiate chondrosarcoma, chordoma, haematopoietic malignancy, rhabdomyosarcoma and epithelioid haemangioendothelioma, etc. The diagnosis is further reinforced with molecular testing for HEY1-NCOA2 gene fusion. Surgical resection with disease-free margin remains the mainstay of treatment. Non-radical resection results in a high risk of local recurrence. Adjuvant anthracycline-based chemotherapy and radiotherapy can be the adjunct treatment.

CONCLUSION:

This case highlights the challenges in its diagnosis especially in the young children population as it is difficult to differentiate between osteosarcoma and Ewing sarcoma. It emphasizes the importance of early recognition due to the tendency of local recurrence and distant metastasis. Early treatment with radical resection is the mainstay of treatment.

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