Giant femoral intra-cortical schwannoma: Case report and review of the literature

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A 19 years old female presents with 3 months' history of a large painless posterior thigh mass. Radiological examination revealed large cortical femoral scalloping with a sclerotic rim. Intra-cortical based lesion with a large (12×5×6 cm) heterogenously enhancing posterior soft tissue mass was seen on MRI. Combined imaging was highly suggestive of surface based bone sarcoma. However, the immunohistochemistry and histology were positive for schwannoma. After multidisciplinary review, the soft tissue lesion was resected and the cortical defect curetted and bone grafted. PubMed and Google Scholar electronic databases were searched to identify all cases of published intra-osseous schwannoma involving the long bones. We identified 39 cases with confirmed intraosseous schwannoma involving long bones published between 1940 and 2016. Most of the cases involved metaphysis and diaphysis except one showed tibial epiphysis involvement. Only four cases were true intra-cortical lesions. Treatment options and type of resections are discussed. The case presented has the largest soft tissue mass reported to date of an intra-cortical schwannoma. Long bone intra-osseous schwannomas are usually found incidentally and are rarely symptomatic. True intra cortical schwannomas are exceedingly rare but can present with a very large soft tissue mass with MRI and bone scan findings suggestive of a bone sarcoma. Diligent biopsy and multidisciplinary review are essential to confirm diagnosis of this rare benign entity that can radiographically mimic a sarcoma.

Biography
Mohammed Al Sobeai has completed Medical School from Dammam University in 2004. He has completed the Saudi Orthopedic Board in 2012 and Jordanian Board in Orthopedic Surgery in 2013. Presently, he is a Canadian Fellowship trained Orthopedic Oncologist and Lower Limb Reconstruction Specialist. He has published many orthopedic research projects and actively involved in literature review and editing.

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