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Case Report

MRI Imaging of Complicated Simple Bone Cyst

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Abstract

Simple bone cyst or unicameral bone cyst is common condition seen in teenage with predominance towards males. It is parallel to the long axis of long bone expanding the medullary cavity. It has these characteristic features unless complicated by pathological fracture and supra added infections [1,4].

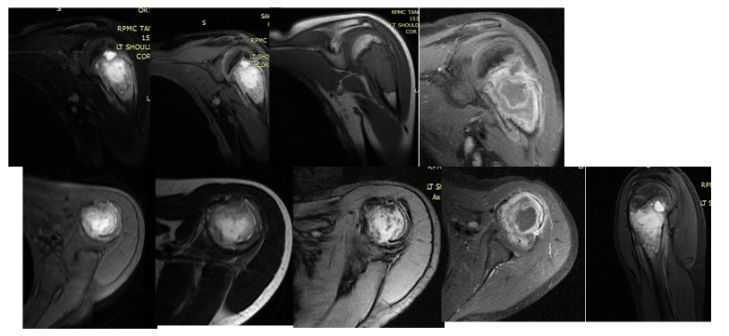
Keywords: *Complicated; Unicameral*

Introduction

Simple bone cyst or unicameral bone cyst is common condition seen in teenage with predominance towards males.

Case Report

A 12 year old male child presenting with pain in right arm MRI images coronal (PD, STIR, T1Wd-Post contrast) axial (PD, T2W, GRE, Post contrast) sagittal (PD) shows a well-defined heterogeneous signal intensity lesion in the right proximal metadiaphysis, parallel to the long axis of the bone which is hyperintense on T2W, PD and STIR sequences and hypointense on T1W images, and on post-contrast images shows peripheral thick enhancement. There is presence on cortical break in the antero-medial aspect suggestive of pathological fracture.



Discussion

Simple bone cyst is benign fluid filled cystic bone lesion which may be complicated by fracture and superadded infection [2].

Clinical presentation: It is seen in teenage with predominance in males and is asymptomatic usually unless complicated by fracture or infection [1-3].

Key imaging diagnostic clues:

1) Simple bone cyst is fluid filled parallel to long axis of the bone expanding the medullary cavity, when it is complicated by pathological fracture appearance alters, Fallen fragment sign is seen with surrounding inflamed soft tissue and periosteal reaction [4,5].
2) MRI signals in complicated simple bone cyst are altered [6].

Conclusion

Simple bone cyst is easy to diagnose with its characteristic location and imaging features on X-ray, CT and MRI however when complicated with fracture or supra added infection it become difficult to arrive at conclusion. Clinical acumen and strong suspicion is key for arriving at diagnosis.

Disclosure

This manuscript is not submitted for publication elsewhere. Publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out. That the author(s) or author(s) institutions have no conflicts of interest. No financial disclosures. No financial aid was obtained for the study.

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