

Image in Medicine

Bhoomi Angirish¹, Bhavin Jankharia²

Quiz 1

A 22-year-old male presented with severe abdominal pain and discomfort.

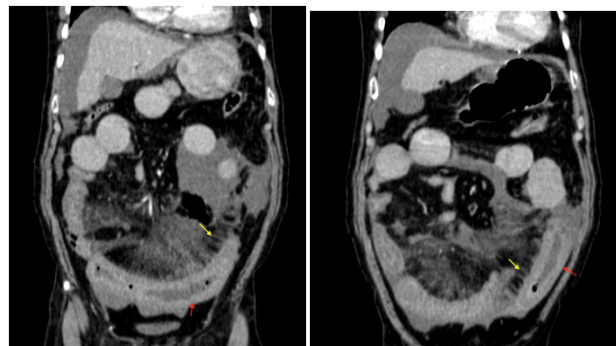
Questions :

- (1) What is the diagnosis ?
- (2) What are the imaging findings?
- (3) What are the extra-intestinal manifestations?

Answers :

(1) Long segment of symmetrical transmural ileal loop thickening (red arrow) is seen with prominence of mesenteric vasculature (yellow arrow). These imaging findings are suggestive of Crohn's disease. Crohn's disease is an idiopathic inflammatory bowel disease characterized by discontinuous gastrointestinal tract inflammation. The terminal ileum and proximal colon are most often affected.

(2) Bowel wall thickening with mural hyperenhancement and submucosal fat deposition is seen. There is engorgement of the vasa recta (comb sign). Complications include stricture, fistulae and mesenteric / intra-abdominal abscess.



(3) There are many extra-intestinal manifestations. The commonly seen include seronegative Spondyloarthritis, Sarcoidiitis, Primary Sclerosing Cholangitis, Autoimmune Hepatitis, Cirrhosis, Iritis, Uveitis.



Quiz 2

A 34-year-old male presented with pain in knee and swelling. There was no history of trauma.

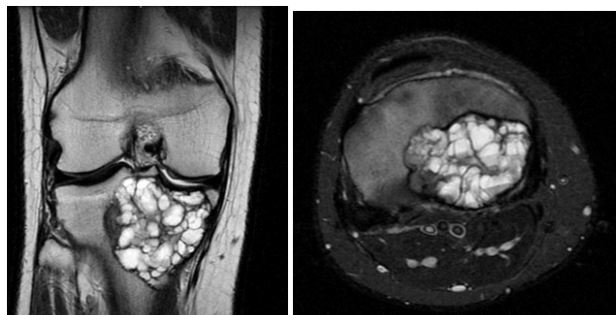
Questions :

- (1) What is the diagnosis?
- (2) What are the imaging features of aneurysmal bone cyst?
- (3) What are the differential diagnosis?

Answers :

(1) Well defined eccentric altered signal intensity showing fluid – fluid levels is seen in metaphysis of tibia reaching to articular surface. These imaging findings are suggestive of giant cell tumour (GCT) with secondary aneurysmal bone cyst (ABC), which was confirmed on biopsy.

(2) Primary ABC account for 1.4% of all primary bone tumours. 30-50% of ABCs occur secondary to primary tumours, such as GCT, chondroblastoma, chondromyxoid fibroma, fibrous dysplasia and osteosarcoma, GCT is the most common out of them.



The ABC component of the lesion reveals fluid-fluid levels which show markedly increased signal intensity on T2W images. Focal areas of high T1 and T2 signal are also seen within the cysts presumably representing areas of blood of variable age.

(3) Similar imaging appearance are seen in telangiectatic osteosarcoma which also shows fluid-fluid levels. While telangiectatic osteosarcoma is associated with soft tissue component and wide zone of transition, ABC shows a narrower transitional zone. Cortical destruction, osteoid matrix mineralization and peripheral & nodular septal enhancement are other features of telangiectatic osteosarcoma.

Department of Radiology, Picture This by Jankharia,
Mumbai, Maharashtra 400004

¹MD, DNB (Radiology)

²MD, DMRD (Radiology)