Perforation of the appendix is one of the complications of appendicitis that is associated with increased morbidity and mortality and regarded as a surgical emergency. The identification of perforated appendix at imaging is not always straightforward, and atypical imaging appearances can add to the interpretive challenge. The diagnosis of perforated appendix on the basis of imaging findings can be challenging when those findings do not conform to classic appearances. This presentation allows readers to become more familiar with the varied spectrum of CT appearances of perforated appendix. The pearls and pitfalls presented also may help improve diagnostic accuracy and guide clinical management of atypical cases.

UNUSUAL CT IMAGING FINDING IN PERFORATED APPENDIX.

KEY WORDS:

INTRODUCTION

Perforation of the appendix is major complication of the appendicitis. The progression of the appendicitis leads to portions of the appendiceal wall become ischemic or necrotic and the appendix perforates.

On CT, perforation is suggested by the presence of localized periappendiceal inflammation, although this is a nonspecific finding.

Most specific CT findings in perforated appendix are —extraluminal air, extraluminal appendicolith, abscess, phlegmon, and a defect in the enhancing appendiceal wall—allows excellent sensitivity (95%) and specificity (95%) for perforation in patients with known appendicitis who underwent preoperative CT.

CASE REPORT

A 47 year old male patient came to the radiology department with pain in the abdomen and vomiting. Contrast Enhanced CT abdomen was performed.

IMAGES:

Figure 1: Coronal CT image of the abdomen

Figure 2: Axial CT image of the abdomen

Figure 3: Operative findings showed sloughed off appendix with intact base, confirmed the finding of perforated appendix.

CT imaging features:

There is blind ending saccular lesion seen arising from the posterior wall of the caecum at 6 o clock position, coursing postero-medially. Few air foci and minimal amount of fluid is noted with the lesion. No obvious thickening is noted. Appendix is not visualized separately from it.

There is dilatation of the small bowel loops with circumferential bowel wall thickening involving the ileum.

Moderate amount of fat stranding is noted in the ileo-caecal region. There is peritoneal thickening with adjacent moderate surrounding fat stranding noted in the right lumbar region with few air foci.

Radiological differential includes

1) Multiple diverticuli.
2) Perforated appendix.

Operative findings showed sloughed off appendix with intact base, confirmed the finding of perforated appendix.

CONCLUSIONS

The diagnosis of perforated appendix on the basis of imaging findings can be challenging when those findings do not conform to classic appearances. This presentation allows readers to become more familiar with the varied spectrum of CT appearances of perforated appendix. The pearls and pitfalls presented also may help improve diagnostic accuracy and guide clinical management of atypical cases.

REFERENCES:

[1] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6380116/