Mucocoele of Appendix: A case report

Clinical History: Patient is an 85 year old male whose USG incidentally showed a cystic mass in the right iliac fossa. Patient was asymptomatic with no history of pain or vomiting. Referred for CT scan for evaluation of the mass.

Findings:

Well defined ovoid lesion in right iliac fossa contiguous with base of caecum(Fig 1,2). It is also abutting the wall of terminal ileum. The appendix is not visualised separately from this lesion. Lesion appears hypodense on unenhanced images and shows foci of curvilinear calcification (Fig 4) in its wall. Minimal enhancement is noted in the wall of the lesion on post contrast scan. No solid areas are seen within it. No wall irregularity noted. No air fluid levels noted within. (Correlated USG shows dense layered echoes within (Onion peel sign; Fig 3).
Diagnosis: Mucocoele of Appendix.

Discussion:

Introduction: Mucocele of the appendix was first described by Rokitansky. This disease is characterized by dilatation of a lumen as a result of an accumulation of a large amount of mucus. The tenacious and viscous mucus causes obstruction of the appendiceal neck and results in dilatation of the lumen. Its incidence ranges between 0.2% and 0.7% of all excised appendixes. According to modern classification, there are 4 histologic types: retention cyst, mucosal hyperplasia, mucinous cystadenoma, and mucinous cystadenocarcinomas.

Clinical presentation: The clinical flow of the disease does not have a specific picture. It often flows asymptptomatically. In about 50% of cases it is discovered accidentally during radiologic and endoscopic examinations or at surgery. A patient's clinical symptoms may include pain in the right lower quadrant of the abdomen, palpable abdominal mass, nausea, vomiting, weight loss, gastrointestinal bleeding, and signs of intussusception of the intestines.

Imaging findings: Preoperative diagnosis of appendicular mucocele is very important for the selection of an adequate surgical method to prevent peritoneal dissemination, to prevent intraoperative and postoperative complication, and repeated surgery. USG, computed tomography (CT), is used for diagnosis. USG is the first-line diagnostic method for patients with acute abdominal pain. USG can be used to differentiate between mucocele and acute appendicitis. In case of acute appendicitis, the outer diameter threshold of the appendix is 6 mm, and 15 mm or more indicates the presence of a mucocele, with 83% sensitivity and 92% specificity.

USG: Typically cystic mass with variable internal echogenicity. The presence of an "onion sign" (sonographic layering within a cystic mass) is considered a highly suggestive feature.

CT: Typically seen as a well-circumscribed, low-attenuation, spherical or tubular mass contiguous with the base of the caecum. Appendix not visualised separately from the mass. The finding of curvilinear mural calcification suggests the diagnosis, but is seen in less than 50% of cases. Intra-luminal bubbles of gas, or an air-fluid level within a mucocele suggest the presence of infection, which can occur in both benign and malignant mucocoeles.

Conclusion: Appendiceal mucocele is a rare disease and has a clinical picture that resembles acute appendicitis. A correct diagnosis before surgery is very important for the selection of surgical technique to avoid severe intraoperative and postoperative complications. USG, particularly CT, should be used extensively for this purpose.

Regards,

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N.B: This case is authentic and from the archives of Radiance Diagnostics. For any queries/suggestions/feedback write to us at radiance@radiancediagnostics.in. Case of the month can also be accessed anytime online at VIEW BOX at www.radiancediagnostics.in