Mucocoele Of The Appendix

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Ind J Radiol Imag 2006 16:2:191-192

Key words : Mucocele, Appendix, USG, CT

Mucocoeles of appendix are rare, appearing in 0.2 - 0.3% of surgical appendectomy specimens. They usually present as right lower abdominal pain. The male:female preponderance is 1:4. There may be complications like malignant change, pseudomyxoma peritonei and intussusception of mucocoele.

A 65-year-old male presented with pain in the right lower quadrant. Physical examination was normal. Haemogram revealed no significant abnormality. Ultrasound Abdomen revealed a tubular anechoic cystic lesion in right Iliac fossa with good through transmission measuring 6.0 x 2.5 cm. Contrast enhanced spiral CT of the abdomen showed well marginated thin walled tubular structure of fluid attenuation (13HU) posterior to the caecum. No calcification was seen in it. No inflammation of the surrounding fat was seen. There was no evidence of ascites. Provisional diagnosis of Mucocoele of appendix was made and was confirmed on surgery and histopathology.

The term mucocele of appendix was first described by Rokitansky in 1842 [2]. Higa et al preferred to consider all the mucocoeles as mucinous neoplasms within a clinico-pathological spectrum comprising of mucosal hyperplasia, mucinous cystadenoma and mucinous cystadenocarcinoma.
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Plain radiographs of the abdomen may demonstrated a
soft tissue mass in the right lower quadrant with or without
calcification and usually appear curvilinear on plain film
but may appear globular when viewed enface [4, 6].

On ultrasound, there is a cystic mass extrinsic to solid
abdominal viscera. Polyoidal excrescence may be seen
projecting intraluminally from the wall of mucocoele,
possibly representing proliferation of appendiceal mucosa.
There is typically excellent good through transmission
and posterior wall enhancement. When wall is calcified,
posterior acoustic shadowing may occur. The wall
thickness varies but if it is more than 6 mm, one should
also consider uncomplicated acute appendicitis. Internal
septations, polyloid lesions extending into the lumen
and irregular shape seem to be associated with malignant
variety, although some papillary processes may be seen
in mucinous cystadenomas [1,7,8].

CT may show a low attenuation (0-40 HU) smooth or
lobulated mass with or without calcification or septation.
They may have simple or multiple cystic components
and some solid element and may even infiltrate
surrounding organs such as colon and bladder [1, 9].

Rupture of the mucocoele may cause pseudomyxoma
peritonei in which CT may show low attenuation ascites
(5-20 HU; 1:1000 scale), scalloping of the liver margin
and bowel loops due to extrinsic pressure by adjacent
peritoneal implants. There may be intussusception of the
appendix. In the presence of intussusception, a mucocoele
may present as a soft tissue mass or as a calcification in
the unusual location, which may mimic a gallstone or
an enterolith. A barium enema may show the usual feature
of intussusception or intraluminal mass which may mimic a
carcinoma in the right colon [3, 4].

Myxoglobulosis is a variant of mucocoele seen in 0.35 %
to 8% of cases in which the appendix is filled with many
solid translucent globules. It was first described by
Latham [3]. When it calcifies, spherules 1-10mm in
diameter, which are generally uniform in size, may be
seen on plain films and may shift with mucocoele. This
appearance is said to be pathognomonic when the
calcification can be localized to the appendix [10].

The finding of appendiceal mucocoele should prompt a
search for an association of adenocarcinoma of colon (6
times increase incidence). There are associations of
mucocoele of the appendix with mucous secreting tumor
of the ovary [1].

The differential diagnosis includes intraperitoneal or
extraperitoneal lesions. Intraperitoneal masses to consider
include ovarian cysts and tumours, duplication
cysts, mesentric and omental cysts, mesentric hematoma
or tumour, and abdominal abscess. Of the retroperitoneal
disorders to be considered, retroperitoneal inflammation,
tumour or haemorrhages are important. Renal cyst and
pancreatic pseudocyst also should be included.

 Imaging usually differentiate between these entities and
presence of a retrocaecal mass requires consideration of
appendiceal pathology, as 65% of appendices lie in this
position [1,4].

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