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Case Report

Mucocele of Appendix – Rare Entity –A Case Report

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Abstract

Appendiceal mucocele (AM) is a rare entity that can present in a variety of clinical syndrome. The prevalence is 0.2- 0.4 % among appendicectomies.[1] A 48 Years old male patient came to our Centre for Nuclear Medicine and Ultrasound (CNMU), Rajshahi for abdominal ultrasound examination. He had pain with vomiting and feeling of lumpiness in right side of lower abdomen. Ultrasonography (US) showed an elongated regular outlined semi-cystic lesion in right iliac fossa. Laparotomy done, per-operative finding reveled AM. Post-operatively histopathological examination report revealed AM.

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Introduction

Appendiceal mucocele (AM) is a rare entity that can present in a variety of clinical syndromes or can occur as an incidental surgical finding. The prevalence of AM is 0.2 -0.4 % among appendicectomies.[1]

Mucocele of the appendix is characterized by a cystic dilatation of the lumen with stasis of mucous inside. Disease frequency is higher in female, M : F ratio is 1 : 4.5 in people older than 50 years old. Most of these tumors are asymptomatic and found incidentally.[2]

The anatomical location of AM in right lower quadrant of abdomen includes it in the differential diagnosis of masses in this region. Preoperative diagnosis of underlying Malignancies in a mucocele is important for the management. [3]

Ultrasonography (US) and Computer Tomography (CT) are useful method in diagnosing mucocele with distinguishing the mucocele from mimic disease.[4]

However, the diagnosis is usually made intra-operatively or postoperatively on histopathological operation.[5]

A correct diagnosis may help to avoid iatrogenic rupture during surgery. Pseudomyxoma peritonei is the worse complication, characterized by peritoneal dissemination caused by spontaneous or iatrogenic perforation of the appendix, which has a high rate of morbidity and mortality.[6]

So early diagnosis is necessary for reduction of mortality as well as morbidity. Here we represent a case of mucocele of appendix.

Case Report

A 48 yrs old male presented with lower abdominal pain especially in right iliac fossa region along with a palpable lump sent to our center for nuclear medicine and ultrasound, Rajshahi for ultrasonography. There was a tubular semi-cystic lesion, measuring about 7.8 x 3.6 cm seen in right iliac fossa on sonography, outer wall of it was thin

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and echogenic. Cystic part containing fine echogenic debris floated inside it suspected as a case of mucocele of appendix.

Other pathological report showed neutrophilic leucocytosis, Hb % was normal. Serum creatinine, FBS, RBS were also normal.

Urine R/M/E and stool R/M/E reports were normal.

Plane X-ray of abdomen in erect posture showed no fluid gas level or any radio-opaque shadow.

Then the patient underwent for surgery. Intra-operative findings was confirmed AM. Histopathology revealed the same.

Discussion

AM is a descriptive term for mucinous distension of the appendiceal lumen regardless of the underlying pathology. Four causal pathologic conditions have been reported: retention cyst, mucosal hyperplasia, cystadenoma (or mucinous tumor of unknown malignant potential) and cysadenocarcinoma.[3]

The external appearance is gross enlargement of the appendix; the lumen is distended by mucin. Clinical manifestations include palpable abdominal mass, gastrointestinal bleeding and lower right abdominal pain.[7]

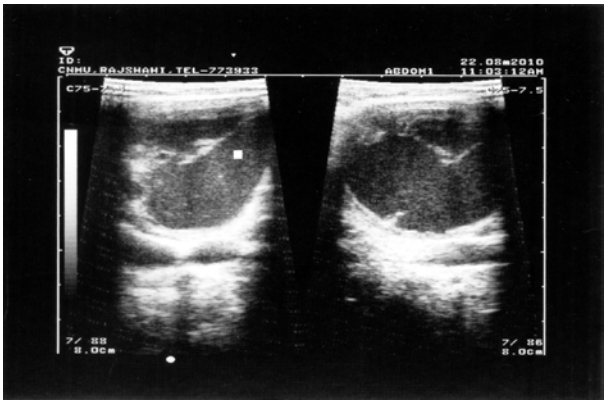
Few other signs reported in some cases include weight loss, nausea/vomiting, acute appendicitis, changes in bowel habits and unexplained anemia.[8]

In our case, patient came with pain in right iliac fossa for 08 days and feeling of hard mass in right side of lower abdomen with occasional vomiting.

The diagnosis is difficult on imaging studies, up to 60 % of cases may be only diagnosed during operation for some other disease. Preoperative diagnosis is important, alerting the surgeon of unintended rupture during surgery and avoiding the development of pseudomyxoma peritonei [9]

Mucocele of the appendix is a rare disease entity but preoperative diagnosis is very important. With the advent of Ultrasonography (US) and computer tomography (CT). It has been possible to preoperatively diagnose mucocele of the appendix[11]

US could show an elongated echo-poor mass, slightly different from what one would expect for a cyst. Fine echo spots or concentric, echogenic layers within the cystic mass[1] Mucocele of appendix in USG appears to be complex cystic mass with high level echoes.[12] In our case we found a regular outlined cystic structure in right iliac fossa region (Fig-I)



USG - Mucocele of appendix

CT is also effective in the evaluation of this disease.[9]

In this case CT is not done.

Surgical resection is the current method of choice in the management of AM.

Open surgery was performed in most of the cases: appendicectomy alone or combined with right hemicolectomy and in some female patients also bilateral sulphingo-ophorectomy or total abdominal hysterectomy were performed. Laporoscopic dissection of AM was also reported[13.]

During laporoscopic surgery might contribute to peritoneal dissemination of an appendiceal mucinous tumor[14.]

In our cases open appendicectomy done. Intraoperative finding confirmed the diagnosis. Histopathological study also diagnosed the case as AM.

Fig-II Resected mucocele of Appendix

Pseudomyxoma peritonei were more common in malignant AM. Malignant AM was present in 95% of pseudomyxoma peritonei cases, 13% patient without this complication. Malignant case could result in diffuse mucinous peritoneal tumor, prognosis is bad [15].

Summery

In summery mucocele of the appendix is a rare disease and may cause acute abdominal condition. Actual diagnosis is usually made intraoperatively or histopathological examination. To improve the prognosis of disease early diagnosis should necessary. US is a useful method to diagnosing mucocele. Thereby reduced morbidity and mortality due to AM

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