

Appendiceal Mucinous Cystadenoma - An Incidental Finding

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Abstract: Mucocele of appendix is a concern for practicing surgeons because of a significant number of cases found incidentally or being misdiagnosed as acute appendicitis preoperatively. This further presents a dilemma with regard to the surgery to be performed, in case it is found incidentally on the operating table because if mucocele is treated incorrectly pseudomyxoma peritonei, which is a malignant process, may develop. We present a case of a 65 yr old female who presented with a complaint of mass protruding through the anal canal since 6 months and diagnosed as a case of prolapsed rectum. Patient was investigated to rule out any colorectal malignancy and any spinal disorders. Patient was planned for mesh rectopexy and was diagnosed with mucocele appendix at the time of surgery. Appendicectomy was performed as no pathological process was found at the base of appendix and suture rectopexy done. Post operatively patient recovered well. Histopathology of the resected specimen revealed mucinous cystadenoma with no evidence of any malignant process.

Keywords: Mucocele, Appendix, Mucinous cystadenoma.

INTRODUCTION

Appendiceal mucocele is an obstructive dilatation of the appendix caused by intraluminal accumulation of mucoid material. It is a rare disease. The incidence is 0.2% to 0.7% of all appendectomied specimens [1-4]. A spectrum of histologic changes may be found in the mucosa of appendiceal mucoceles, ranging from benign epithelium to the invasive changes of mucinous adenocarcinoma [5].

The disease may be an incidental finding or may present with features of acute appendicitis. It is imperative to diagnose this disease preoperatively so that adequate surgical treatment can be carried out. If handled improperly the contents of a mucocele may spill into the peritoneal cavity resulting in pseudomyxoma peritonei, resulting in high morbidity of the patient [6].

CASE REPORT

A 65 yr old female presented to the Surgical OPD with complaint of mass protruding out of the anus for the last 6 months, during defecation, which at times warranted manual reduction. On examination anal sphincter tone was slightly decreased and no other abnormal findings observed on PR examination. Rectum protruded out through the anus on straining, with the protruding mucosa appearing to be grossly normal. Patient had no history of spinal trauma or low back pain, with normal neurological examination was WNL. No history of bladder or bowel incontinence. Patient had a history of three normal vaginal deliveries.

Patient was advised pelvic floor muscle exercises and taken up for surgery after getting routine blood investigations, ECG, USG Abdomen which were all within normal limits(WNL). X ray L-S Spine showed lumbralisation of S1 vertebra and spondylitic Changes.

Patient was operated through the lower midline incision. On opening the peritoneum a cystic lesion was observed in the right iliac fossa. On further dissection the cystic lesion turned out to be mucocele appendix with fibrous adhesions to the caecum (Fig 1). After careful adhenolysis, the base of appendix observed and found to be grossly free of any disease process. No lymphadenopathy seen in the abdomen and both ovaries appeared to be normal. So a decision to perform appendicectomy was made. Appendicectomy was done, taking all of the mesoappendix along with the appendicular specimen. Base of appendix was buried with a purse string suture. Suture rectopexy was then performed instead of mesh rectopexy, keeping in mind the possible infection of the mesh prosthesis as appendicectomy had been performed. Abdominal drain was placed which was removed on post op day two as the serosanguinous drain output decreased. Post operatively patient recovered well.

On cut section the appendicular specimen showed the presence of mucinous substance in the cystic cavity (Fig 2). Histopathological examination of the specimen showed thinned out wall, focally lined by

columnar epithelium with lumen containing mucinous material, findings consistent with mucinous cystadenoma.

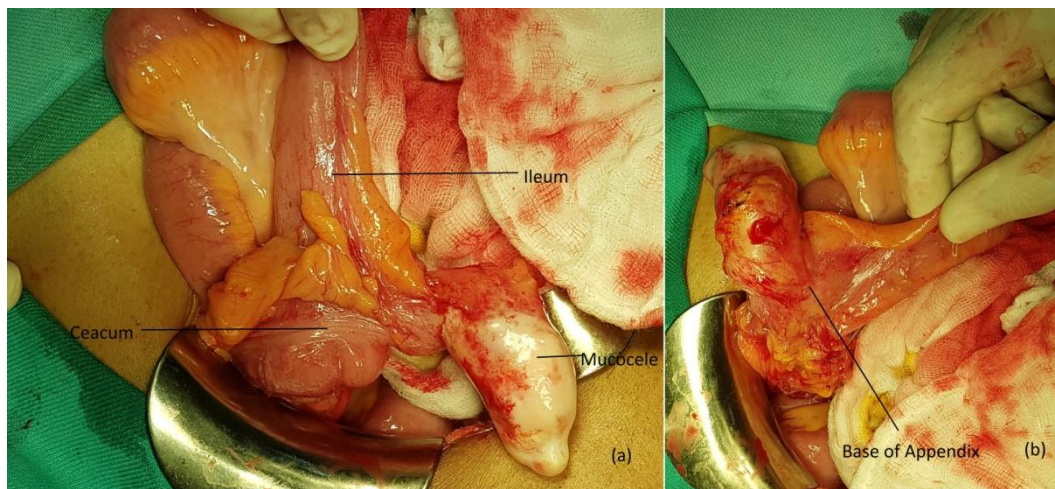


Fig 1(a): Shows the mucocele appendix specimen in-situ with the cecum and ileum. Figure 2(b) shows the base of appendix which is free of any disease process

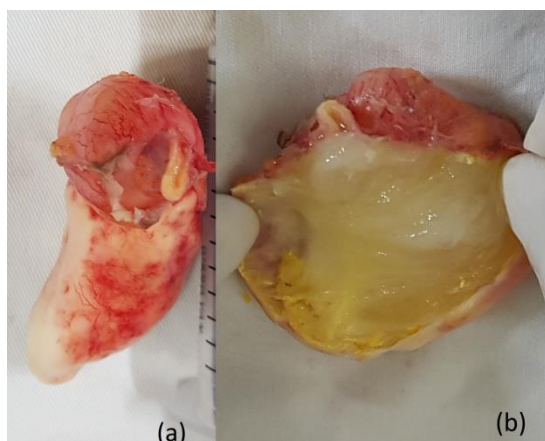


Fig 2(a): shows the excised appendicular specimen and Figure 2(b) shows the cut open appendicular specimen containing mucinous substance with thinned out walls

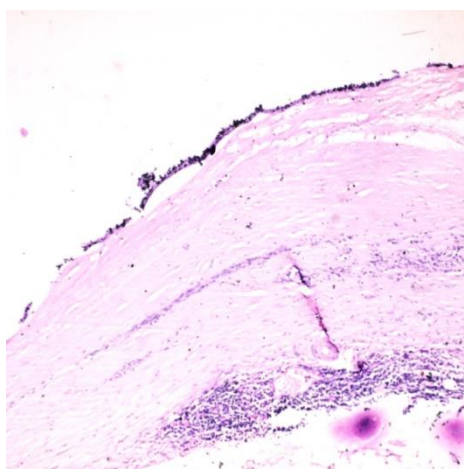


Fig 3: Histopathological examination the specimen showed thinned out wall, focally lined by columnar epithelium which was ulcerated in some areas

Underlying wall was fibrocollagenous and infiltrated by lympho mononuclear inflammatory cells. Lumen contained mucinous material. (H&E 100x)

DISCUSSION

A mucocele of the appendix is an obstructive dilatation by intraluminal accumulation of mucoid material. A spectrum of histologic changes that may be found in the mucosa of appendiceal mucoceles ranges from benign epithelium to invasive changes in mucinous adenocarcinoma [5]. Intact mucoceles less than 2 cm in size are mostly benign [7]. Mucoceles may be caused by any of these four processes: retention cysts, mucosal hyperplasia, cystadenomas, and cyst adeno carcinomas. The clinical presentation of mucocele is nonspecific, and is often an incidental finding at the time of surgery for acute appendicitis. An intact mucocele does not pose any future risk for the patient; however, if the mucocele has ruptured and epithelial cells have escaped into the peritoneal cavity it may result in pseudomyxoma peritonei. As a result, when a mucocele is diagnosed preoperatively or visualized at the time of laparoscopic examination, a laparotomy is recommended [8].

The presence of a mucocele appendix does not necessitate the performance of a right hemicolectomy. The surgery should include resection of the appendix, wide resection of the mesoappendix (to include all the appendiceal lymph nodes, if any), collection and cytologic examination of intraperitoneal mucus, and careful inspection of the base of the appendix. Right hemicolectomy, or cecectomy, is reserved for patients with a positive margin at the base of the appendix or positive periappendiceal lymph nodes [9].

CONCLUSION

Although a rare disease, the surgical treatment of Appendiceal mucinous cystadenoma is mandatory because of its potential for malignant transformation and careful surgical resection is required to prevent the formation of pseudomyxoma peritonei due to the rupture of mucocele itself. Therefore, if found incidentally, adequate surgical excision must be carried out keeping in mind the extent of disease process of each patient.

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