

## Case Report

# A case of mucinous cystadenoma of appendix

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### ABSTRACT

Mucocoele of the appendix is the term used to describe an appendix dilated with mucous collections due to benign or malignant causes. Primary tumors of the appendix are rare. Many a time, a mucocoele of the appendix is reported through histopathological study of the appendix removed in a scenario of acute appendicitis. 25% of the patients with mucocoele of appendix are asymptomatic, however patients may present with acute appendicitis or other obstructive symptoms. Here we report an unusual presentation of mucocoele of appendix who presented with chronic pain and mass in the right lower abdomen.

**Keywords:** Appendix, Mucinous cystadenoma, Mucocoele

## INTRODUCTION

Mucocoele of the appendix is the term used to describe an appendix dilated with mucous collections due to benign or malignant causes.<sup>1</sup> Primary tumors of the appendix are rare. Many a time, a mucocoele of the appendix is reported through histopathological study of the appendix removed in a scenario of acute appendicitis. 25% of the patients with mucocoele of appendix are asymptomatic, however patients may present with acute appendicitis or other obstructive symptoms. Here we report an unusual presentation of mucocoele of appendix who presented with chronic pain and mass in the right lower abdomen.

## CASE REPORT

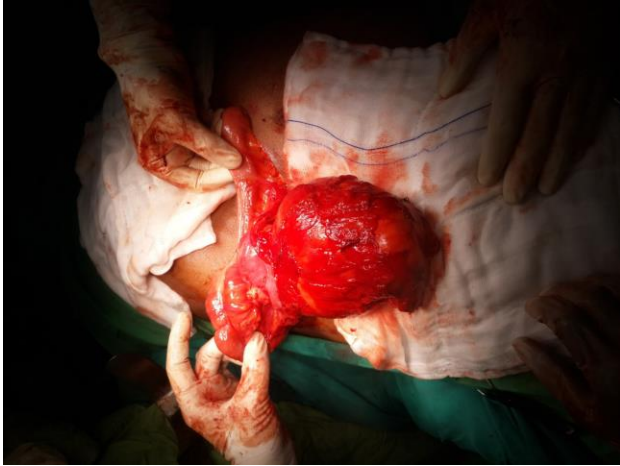
A 67-year-old male presented to the OPD with dull aching pain and abdominal fullness in right lower abdomen for 6 months with no aggravating or relieving factors. He had no complaints of vomiting, altered bowel habits, urinary symptoms, blood in stools or malena. Patient was eating well and had no loss of weight. Examination revealed a nontender, nonballotable, intra-abdominal mass of size of 13x13cms in the right iliac

fossa extending into the right lumbar region with well-defined borders. The mass was firm in consistency with restricted mobility and dull on percussion. Rectal examination was normal.

All the blood parameters were normal, CEA within normal range and stool occult blood was negative. Colonoscopy showed no mucosal abnormalities upto ileum. Contrast enhanced CT showed a cystic mass of 13x13x9cms arising from the base of the caecum with mild wall enhancement and eccentric wall calcification occupying right lower abdominal quadrant displacing the right ureter medially with no ureteric dilatation or obstruction. The appendix could not be separately visualized from the cystic lesion, probably to be mucocoele of the appendix.

Exploratory laparotomy was done via right transverse incision. Intraoperative findings included a 13x13cms cystic mass very closely related to the right psoas muscle with flimsy adhesions as in Figure 1. No mesenteric lymphadenopathy. Appendix could not be separately visualized; rest of the bowel and the peritoneum were found to be normal. Careful dissection was done and cystic mass thoroughly delineated from adjacent

structures. In view of an intra-operative benign picture, a limited resection was done with adequate margins and recontinuity was established with an ileoascending anastomosis. Patient recovered well postoperatively. Histopathological examination revealed mucinous cystadenoma arising from the appendix.



**Figure 1: A cystic mass after dissection arising from the base of caecum with non-visualization of appendix- S/O Mucinous cystadenoma of appendix.**

## DISCUSSION

Mucocoele of the appendix is an obstructive dilatation by the intraluminal accumulation of mucoid material which can be caused due to retention cysts, mucosal hyperplasia, mucinous cystadenoma or mucinous cystadenocarcinoma.<sup>2</sup> In the absence of marked intraluminal contamination, a mucocoele of the appendix may be formed whenever the rate of appendiceal secretion exceeds the rate of absorption and proximal drainage.<sup>3</sup> Mucous cystadenoma is characterized by villous adenomatous change of the appendiceal epithelium with marked distension of the appendiceal lumen with mucin resulting in a mucocoele.<sup>4</sup> Primary tumors of the appendix are rare, most common being the carcinoid tumor and others include adenoma, adenocarcinoma, mucinous cystadenoma, mucinous cystadenocarcinoma and lymphoma.<sup>5</sup> Mucocoele of the appendix is usually an incidental finding in 0.2-0.3% of appendicectomy specimens done for acute appendicitis. 25% of the patients with mucocoele of appendix are asymptomatic. Rest of the patients can present with symptoms of acute appendicitis, chronic right lower abdominal pain, features of intestinal obstruction, intussusception, gastrointestinal bleeding or extrinsic ureteral compression.

Radiologically; plain radiograph, barium enema study, CT abdomen and MRI can be used to evaluate a case of mucocoele of the appendix. However CT has a higher

sensitivity as it can detect mural calcification better than the rest.<sup>6,7</sup> There is pent up mucous in the lumen of the appendix resulting in wall distension, thinning of the wall and ulceration which gets calcified and presents as a picture mentioned above in contrast enhanced CT. Microscopically, cystadenoma and cystadenocarcinoma resemble each other closely however the subtle differences are invasion of appendiceal wall by atypical glands and the presence of intraperitoneal epithelial cells.<sup>8</sup> Complications of mucocoele are intestinal obstruction, ureteral compression, rupture and pseudomyxoma peritonei.

## CONCLUSION

Mucinous cystadenoma of the appendix is a rare entity and may present as chronic abdominal mass as we had reported. So, any suspicious mass in RIF with non-visualization of appendix on imaging should be investigated thoroughly. On a diagnosis of mucinous cystadenoma of appendix, treatment is aimed at limited resection via open or lap assisted approach without mucin spillage to avoid any further complications.

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