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**CASE REPORT**

## Mucocele Appendix - A rare condition

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**Received:**  
13th October 2018

**Accepted:**  
22nd March 2019

### Abstract

Mucocele appendix is a rare condition with 0.2-0.7% of all appendectomy specimens. Main aim of reporting the case of mucocele appendix is to highlight exact management, pitfalls and avoiding them.

### Case Report:

We report a case of 34-years old male who was admitted to surgical ward combined military hospital (CMH) Malir, Karachi with complaints of pain right lower abdomen, vomiting and loss of appetite for the last 3-days. Clinical examination showed tender mass right iliac fossa. Blood complete picture showed total leucocyte count  $8.8 \times 10^9/l$ , urine analysis was unremarkable. Ultrasound abdomen showed tubular linear structure with internal heterogeneous contents with minimal free fluid in the peritoneal cavity, suggestive of developing mucocele appendix. Open appendectomy was done which showed mucocele appendix with normal looking base and no mesenteric lymph adenopathy. Histo-pathological report confirmed mucinous cystadenoma appendix

**Keywords:** Appendicitis, mucocele, mucinous cystadenoma appendix, pseudo-myxoma peritoneai

### Introduction:

Mucocele appendix is a rare disease which usually presents as acute appendicitis, is accumulation of mucoid material causing obstructive dilatation of appendix. It is an incidental finding. It is caused by neoplastic process as mucinous cystadenoma carcinoma or benign lesions as mucosal hyperplasia, simple retention cyst, mucinous cystadenomas. A case report is being presented to determine exact management of mucocele appendix, its pitfalls and avoidance of complications.

### Case Report:

A 34-years old male was admitted to surgical ward on 13<sup>th</sup> June 2018 with complaints of pain right lower abdomen, vomiting and loss of appetite for the last 3-days. Clinical examination revealed tender mass right iliac fossa. Blood count was within normal range along with unremark-

able urine analysis. Ultrasound studies revealed long tubular structure right iliac fossa with internal heterogeneous material with small amount of fluid suggestive of developing mucocele appendix and probe tenderness. Open appendectomy was planned on the basis of diagnosis of acute appendicitis. Peroperatively markedly distended appendix with mucus was found confirming mucocele appendix with no mesenteric lymphadenopathy and normal looking appendicular base. Patient showed uneventful postoperative recovery. Histopathology report confirmed mucocele appendix—mucinous cystadenoma

### Discussion:

Rokitansky described mucocele of appendix as dilatation of appendix due to intra-luminal collection of mucus material secreted by goblet cells abundant in appendix. 0.2-0.7% is the incidence in appendicular specimens.<sup>1</sup> 4-histo-

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Figure-1: ultrasound showing distended appendix with internal heterogeneous material



Figure-2: Mucocoele Appendixes



Figure-3: Appendectomy specimen



Figure-4: Appendicular base

logical types are seen as retention cysts, mucosal hyperplasia, mucinous cystadenoma and mucinous cystadenocarcinoma.<sup>2,3</sup> In 50% cases it is an incidental finding, in other cases it presents as acute appendicitis. Pre-operative diagnosis of mucocoele appendix is very important to prevent its spread on perforation, post-operative complications and repeated surgery. Ultrasound shows 83% sensitivity and 92% specificity of mucocoele and is the first line of diagnostic tool in case of abdominal pain. CT scan abdomen is the most accurate diagnostic modality.<sup>4</sup>

Certain factors should be observed during surgery (a) mucocoele is perforated or not (b) base of appendix involved (c) mesenteric lymph nodes involved or not.<sup>5</sup>

Selection of adequate surgical procedure is important as perforation of mucocoele may lead to pseudo-myxoma peritonei as it is problematic condition and difficult to treat. Open surgery has certain benefits as it avoids perforation of mucocoele, inspection, palpation of surrounding structures can be done easily as compared with laparoscopic approach.<sup>5,6</sup> However some surgeons do laparoscopic removal by following safety measures, using endobags for extraction.<sup>7</sup> If base of appendix is normal, no lymph nodes involved simple appendectomy is done otherwise right hemicolectomy including cytoreductive surgery and intra-operative intra-peritoneal chemotherapy.<sup>8</sup>

#### Conclusion:

In conclusion exact pre-operative diagnosis with the help of ultrasound or CT scan abdo-

men should be made to avoid intra-operative as well as post-operative complications and we can plan adequate surgical treatment

**Conflict of interest:** none

**Finding source:** Nil

#### Role & contribution of authors:

Dr Khalid Ibrahim, collected the data and references and also wrote the initial writeup

Dr Sara Fatima, helped in collecting the data and references

Dr Bushra Aman, critically review the article and made the final changes

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