Case Report: Acute presentation of patient with Appendiceal Mucocele who was lost to follow up

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Background

Appendiceal mucoceles are rare mucous containing cystic lesions of the appendix causing obstruction and dilatation. Careful diagnosis and considerations need to be made regarding surgical approach in order to prevent rupture and pseudomyxoma peritonei.[1] In order to better understand this disease and surgical treatment we present a patient and his course through diagnosis and treatment.

Literature Review

Mucocele of the appendix is an extremely rare condition due to obstructive dilatation of the appendiceal lumen due to mucin accumulation found in approximately 0.2-0.3% of Americans that undergo resection of the appendix.[2,3] It can be due to benign reasons such as retention cyst, mucosal hypertrophy, cystadenoma, or malignant such as cystadenocarcinoma.[4] Early diagnosis and treatment is paramount as malignant mucoceles can lead to peritoneal dissemination causing pseudomyxoma peritonei.[4] Patients may present acutely or chronically sick with right lower quadrant pain, bowel obstruction, intussusception and bleeding.[5] They can also mimic acute appendicitis very closely, and thus correct diagnosis through ultrasonography and CT is important for adequate surgical treatment.[4]

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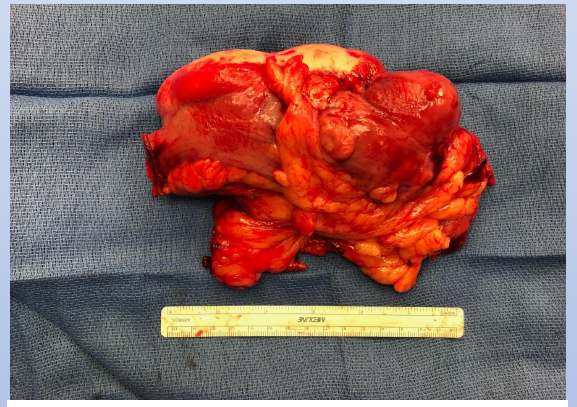
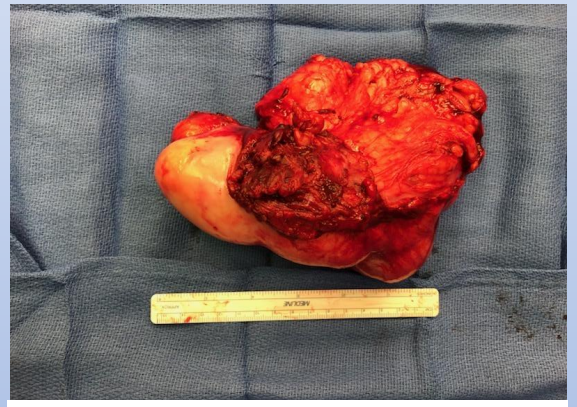
Case Presentation

A 63-year-old male presented to the emergency department with a 4-day history of right lower quadrant abdominal pain, and past medical history of diverticulitis. Patient had progressively worsening pain in right lower quadrant. A CT abdomen and pelvis revealed a calcified appendiceal mucocele measuring 11.4x6.9cm. A CT scan from 8 years prior showed the same mass but smaller (10x4.7cm); and he was lost to follow up after that incident. A preoperative colonoscopy with polypectomy exhibited mucinous excretions from the appendiceal orifice and 3 tubular polyps in the colon. Diagnostic laparoscopy was done to rule out mucinous carcinomatosis and upon confirmation of no peritoneal dissemination, the procedure was converted to an open right hemicolectomy. Ileocecectomy was performed with removal of appendiceal mucocele with no evidence of extracolonic disease. Pathology report confirmed no evidence of malignancy, with benign lymph nodes. Patient tolerated the procedure well and followed up in clinic after being discharged.



Specimen showing ileocecectomy margin



Large appendiceal mucocele without rupture

Discussion

Diagnosis pre-operatively is difficult, yet crucial to select the appropriate procedure to prevent complications, particularly peritoneal dissemination. Conventional surgery has a lower risk of rupture and thus is preferred compared to a laparoscopic approach. Dhage-Ivatury and Sugarbaker have formulated an algorithm for the selection of the type of surgery. The first choice for patients with a benign mucocele suggested by a normal cecum, and no perforation is simple appendectomy. When there is a perforated mucocele, positive cytology or enlarged mesenteric lymph nodes and malignant mucocele is suspected, then right hemicolectomy is recommended. Additionally, exploration of the abdomen is suggested to rule out other mucin secreting tumours, such as colon and ovarian.[6]

Conclusion

This case shows an unusual presentation of an appendiceal mucocele that was allowed to grow to a large size as he was lost to follow up. Fortunately, he was diagnosed correctly and he was able to undergo a therapeutic procedure after confirming that he did not have peritoneal dissemination.

References

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