T4a Low-grade Appendiceal Mucinous Neoplasm: Case Report and Review of the Literature

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Introduction

Appendiceal mucinous lesions are rare representing between 0.2 to 0.3% of all appendectomy specimens, with a higher prevalence in females and those over 50 years of age.[1] Patients with appendiceal mucinous lesions or mucoceles are often asymptomatic or have nonspecific symptoms, most commonly acute or chronic right lower quadrant abdominal pain.[2] Therefore preoperative diagnosis is difficult and can be mistaken as a gynecological lesion.[3]A serious potential complication of an appendiceal mucinous lesion is rupture or perforation resulting in pseudomyxoma peritonei (PMP)[2]. This report describes a case of a low grade appendiceal neoplasm.

Case Presentation

A 34-year-old female presented with a 6-month history of intermittent right lower quadrant abdominal pain. Ultrasound revealed a complex cystic mass in the right adnexa. The patient was assessed by Gynecology and General Surgery as radiology was unable to determine the origin of the mass following MRI. CT imaging favored an appendiceal mucocele and a laparoscopic appendectomy was performed. Intraoperatively, the mass was found to have a dual blood supply arising from the appendiceal artery and a vessel adjacent to the right fallopian tube. A stapler was used to divide the base of the appendix and the specimen was retrieved with the aid of a sterile bag to prevent rupture. The patient was discharged on the day of surgery without complication. The histopathological results revealed a low-grade appendiceal neoplasm with negative margins and acellular mucin noted on the serosal margin, classifying this specimen as a T4a lesion. The specimen measured 8.4 x 6.4 x 4.9 cm. The patient recovered without issue. Given that the rate of recurrent disease is between 3% and 7%, no further surgery is warranted.[4] A colonoscopy is pending and surveillance using tumour markers and an abdominal CT scan is planned.



Figure 1. Macroscopic appearance of the resected specimen.
The appendiceal specimen is dilated, has an intact serosal surface and demonstrates an edematous area measuring 1.5 x 0.9 cm.

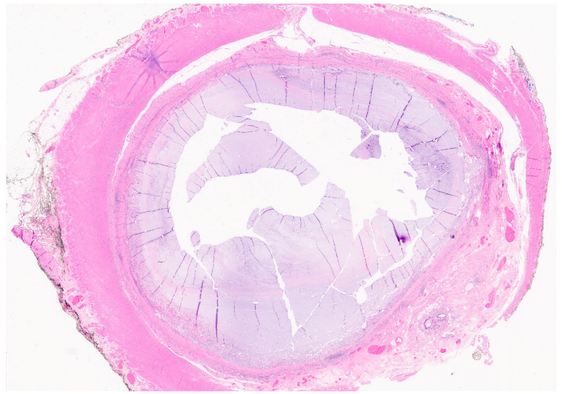


Figure 2. Histological findings.
Hematoxylin and eosin staining shows a cystically dilated appendiceal lumen filled with acellular mucin (0.4x).

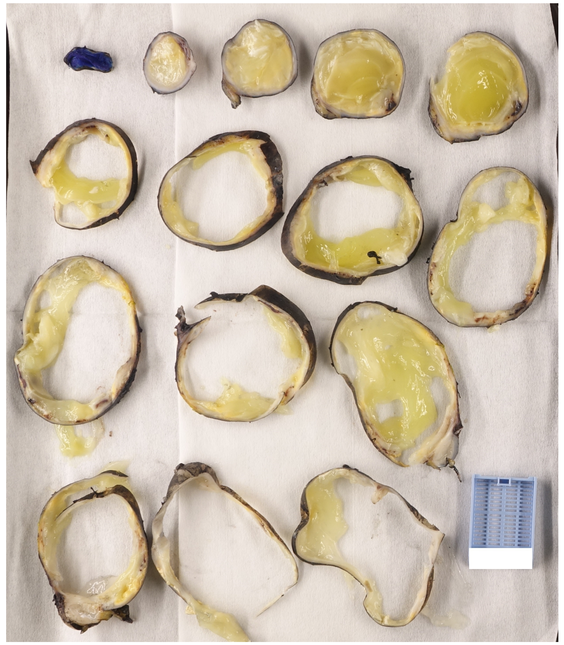


Figure 3. Macroscopic appearance of the resected specimen.
The edematous mass contains yellow mucin which is present at the serosal margin.

Conclusions

In conclusion, this case outlines a rare case of low grade appendiceal neoplasm with acellular mucin deposit on the serosal margin highlighting the imaging modalities utilized in the diagnosis, pathology classification and grading system, treatment and subsequent follow up approach.

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