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GIANT MUCINOUS CYSTADENOMA OF APPENDIX: A RARE CASE REPORT

Surgery

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ABSTRACT

Introduction: Mucinous cystadenoma of the appendix is a rare benign neoplasm with the potential for complications, including pseudomyxoma peritonei. Its preoperative diagnosis remains challenging due to its overlapping features with adnexal masses. **Case Presentation:** A 67-year-old female presented with left lower abdominal pain and vomiting for six months. Imaging studies suggested a large adnexal lesion. However, further evaluation revealed a giant appendiceal mucinous cystadenoma. The patient underwent right hemicolectomy with ileo-transverse anastomosis. Histopathology confirmed the diagnosis. **Conclusion:** Early diagnosis through imaging and appropriate surgical management is crucial to avoid complications such as peritoneal spillage of mucin.

KEYWORDS

INTRODUCTION

Mucinous cystadenomas are rare neoplasms accounting for less than 0.3% of all appendiceal pathology. They are characterized by cystic dilatation due to mucin accumulation. Misdiagnosis can occur as the lesion often mimics ovarian or uterine masses in imaging studies. Preoperative awareness is essential to avoid rupture, which can lead to pseudomyxoma peritonei, a severe complication.(1) It illustrates an inflammatory or neoplastic etiology; however, it is of paramount importance for the surgeon to note that mucoceles are predominantly attributable to mucinous cystadenomas and cystadenocarcinomas. In instances pertaining to the latter, an eventual rupture of the mucocele, whether spontaneous or incidental, may precipitate the clinical manifestation known as pseudomyxoma peritonei, characterized by the dissemination of malignant cellular entities throughout the peritoneal cavity, resulting in the formation of multiple mucinous deposits. An accurate diagnosis could play a crucial role in mitigating the risk of iatrogenic rupture during operative procedures.

Case Report

Clinical Presentation

A 67-year-old female visited an outside hospital with complaints of persistent left lower abdominal pain for six months, accompanied by non-projectile vomiting containing food particles. Initial ultrasound (USG) abdomen and pelvis revealed a 91 x 70 mm mixed echogenic lesion in the right adnexa, suggestive of a uterine fibroid or ovarian mass.

Investigations

- CEA, CA 19.9, and Chromogranin-A: Within normal limits.
- **CT Scan:** A 13.6 x 6 cm hypodense lesion with smooth wall enhancement medial to the right ovary.
- **MRI:** A well-defined, thin-walled cystic lesion measuring 13.3 x 6.3 x 7.5 cm medial to the right ovary. Uterus and ovaries were normal, suggesting a benign para-ovarian or ovarian cyst.

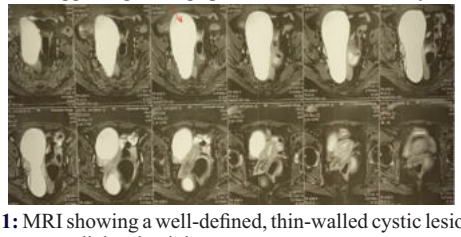

Figure 1: MRI showing a well-defined, thin-walled cystic lesion in the right adnexa, medial to the right ovary

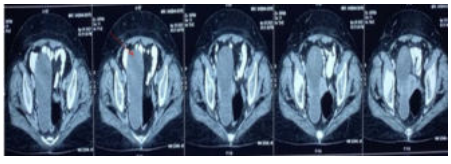

Figure 2: CT scan showing a 13.6 x 6cm hypo-dense lesion with smooth wall enhancement noted in right adnexal region medial to right ovary.

Operative Findings

Exploratory laparotomy was performed, revealing a large cystic appendicular mass. A right hemicolectomy with ileo-transverse anastomosis was conducted to prevent potential rupture.

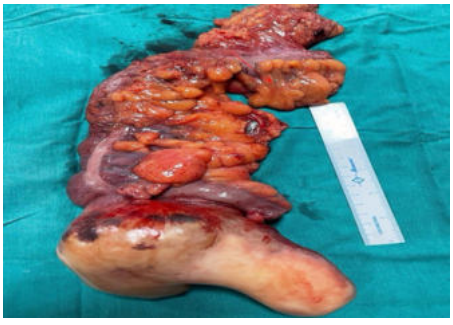

Figure 3: Right hemicolectomy specimen showing a giant appendicular mass.

Histopathological Examination

The excised lesion confirmed a mucinous cystadenoma of the appendix. Immunohistochemical markers for chromogranin, synaptophysin, and Ki-67 were negative, confirming the benign nature of the lesion.

DISCUSSION

Mucinous cystadenoma of the appendix, though rare, poses diagnostic challenges due to its nonspecific clinical presentation and imaging findings that mimic adnexal masses. (2) It is critical to distinguish this condition preoperatively to avoid inadvertent rupture during surgery, which could result in pseudomyxoma peritonei.

Imaging Modalities:

- Ultrasound and CT often reveal a cystic lesion.
- Colonoscopy can be useful in diagnosing appendiceal mucocele.

Surgical Management:

Laparotomy or laparoscopic excision is the preferred treatment. In cases of large appendiceal mucinous cystadenomas, a right hemicolectomy is often performed to ensure complete resection. (4)

Complications:

- Intestinal obstruction
- Intussusception
- Gastrointestinal bleeding

- Extrinsic ureteral compression

The most concerning complication is pseudomyxoma peritonei, which occurs due to the spillage of mucin into the peritoneal cavity, necessitating careful surgical handling.(3)

CONCLUSION

Mucinous cystadenoma of the appendix is a rare but significant clinical entity. Early diagnosis using imaging and appropriate surgical intervention is vital to prevent complications. Surgeons should maintain a high index of suspicion when evaluating adnexal masses, especially in the absence of ovarian pathology on imaging.

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