A Unique Complication of Pseudomyxoma Peritonei: Ovarian Torsion

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Background

Pseudomyxoma peritonei (PMP) is a rare disease that usually originates from appendiceal mucinous neoplasms causing mucous accumulation within the peritoneal cavity[1]. Less commonly, from extra-appendiceal tumours. These tumours can range from benign to malignant. Commonly, patients would present with signs of acute appendicitis, ascites, abdominal distension, an abdominal mass, or generalised abdominal pain. This case study discusses a 33 year-old-female who presented with an acute abdomen secondary to right ovarian torsion. The torsion was thought to be caused by an appendiceal mucinous adenocarcinoma encapsulating the fallopian tube. This is a rare complication of PMP.

Case

A nulliparous 33 year-old-female presented to the emergency department in 2017 with severe lower abdominal pain and vomiting. The right fallopian tube was torted secondary to the appendiceal tumour, lying in the pouch of Douglas, as demonstrated in Figure 1b. Laparoscopy also demonstrated extensive peritoneal disease apparent with mucinous deposits in the parietal peritoneum, as seen in Figure 1a. Appendicectomy & right ovarian cystectomy and detorsion were performed. One month later, the patient had a repeat right ovarian torsion, thus a laparoscopic right salpingoophorectomy was performed. Histology demonstrated metastatic low grade mucinous adenocarcinoma, similar in appearance to the appendiceal primary and extra-appendiceal masses.

As she had an appendiceal primary low grade mucinous adenocarcinoma peritonei and krukenberg tumour, the patient underwent an elective cytoreductive surgery and Hyperthermic Intraperitoneal Chemotherapy (HIPEC), with ICU admission following. She developed vault dehiscence and during her admission had a colposcopy and dehiscence repair under general anaesthetic. The cytoreductive surgery included a bowel resection with stoma bag and splenectomy, for which she had to have vaccines and three years of prophylactic antibiotics. Four months following cytoreductive surgery, she had a closure of ileostomy. She has since had a three year post-operative CT chest, abdomen and pelvis which demonstrated no disease recurrence.

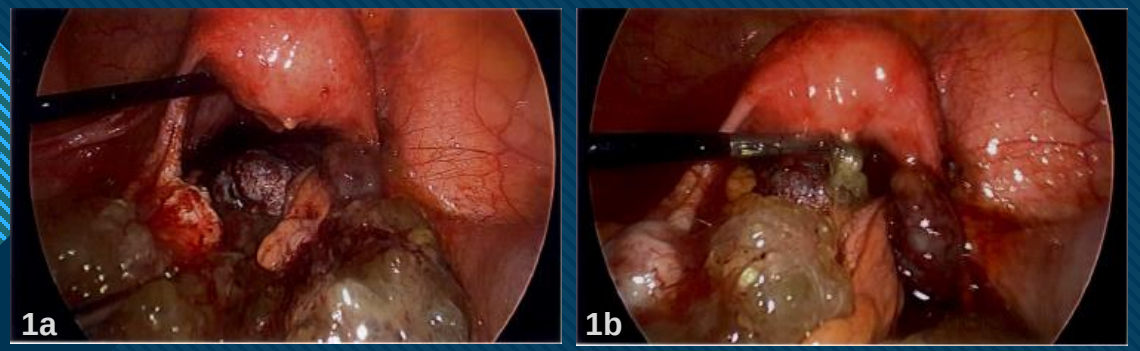

Figure 1a. Diagnostic laparoscopy images revealing a necrotic right ovary lying within the pouch of Douglas, with straw coloured mucinous collections throughout.
Figure 1b. Clearing of the mucinous secretions reveals an enlarged appendix winding around the right fallopian tube.

Discussion

PMP is a complex and rare disease that presents with a broad variety of vague symptoms. This patient presented with an acute abdomen secondary to right ovarian torsion from an appendiceal primary mucinous adnenocarcinoma encapsulating the fallopian tube. After reviewing the literature, one previous case study from 1953 reports adnexal torsion as a complication of PMP[2]. It is therefore extremely rare for a female to present with an acute abdomen secondary to ovarian torsion from PMP. Gynaecologists should consider PMP as a rare, but potential cause for ovarian torsion during diagnostic laparoscopy.

References

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