Cardiac tamponade from appendiceal adenocarcinoma

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DESCRIPTION

A 69-year-old woman presented with worsening dyspnoea for a month. She had a history of moderately differentiated non-mucinous appendiceal adenocarcinoma, diagnosed 10 months prior based on pathology from an emergent appendectomy for acute appendicitis. Mesenteric margins had been indeterminate but the patient had been lost to follow-up. On this presentation, echocardiography revealed a large pericardial effusion with tamponade physiology (figure 1A). Emergent pericardial window was successfully performed. Pericardial fluid cytology and tissue histology with immunostaining were consistent with metastatic adenocarcinoma (figure 1B). Investigations for an alternative primary were unremarkable including mammography and CT imaging of the chest, abdomen and pelvis. The patient was referred to oncology for further management.

Appendiceal neoplasms can be broadly sorted into non-epithelial or epithelial tumours. Adenocarcinoma is a subset of the latter that accounts for less than 1% of all gastrointestinal neoplasms.¹ The diagnosis is usually incidental, discovered on up to 1.4% of appendectomy specimens post appendicitis.¹

Uniquely, mucin-secreting adenocarcinomas may parade as pseudomyxoma peritonei. Otherwise, extra-appendiceal manifestations may be seen as local colonic invasion or intra-abdominal lymph node spread. There are few reports of liver, lung and genitourinary metastases and a single case of thyroid metastasis.^{1,2}

The rarity of appendiceal adenocarcinoma translates to a paucity of high-quality evidence for management strategies. Most experts recommend right hemicolectomy.^{1,3} Conversely, there are observational studies supporting solely appendectomy in cases with well-differentiated tumours confined to the appendix, without extension to

Patient's perspective

I just thought I was okay after they took out the appendix, I did not know I had to come back. I feel okay now but I do not think I want to do anything else, I do not want chemotherapy or anything that will make me weaker.

Learning points

- ▶ Appendiceal adenocarcinoma has the potential to metastasise widely, even to the pericardium.
- ▶ If discovered, even incidentally on postoperative appendicitis specimen, it should prompt thorough staging and be treated aggressively with consideration for early haemicolectomy.
- ▶ Even though there may be distant metastases of appendiceal adenocarcinoma, some forms of chemotherapy may still be beneficial.

the base, smaller than 2 cm and without evidence of mesoappendiceal involvement.⁴ Cytoreductive surgery and heated intraperitoneal chemotherapy have proven beneficial, albeit in a highly selective group of patients with peritoneal involvement, thus precluding consensus on its role at this time. Furthermore, there are promising data with systemic chemotherapy, usually combination fluorouracil and platinum-based regimens, that demonstrate improved overall survivability even in patients with metastatic disease.^{5,6}

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Figure 1 (A) Transthoracic echocardiography showing a pericardial effusion causing invagination of the right ventricle during diastole (arrowhead) and (B) pericardial histology showing adenocarcinoma cells (arrow).

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