



A Rare Case Of Low Grade Appendiceal Mucinous Neoplasm

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Abstract

"Low-grade appendiceal mucinous neoplasms" (LAMNs) have been proposed as one subtype of appendiceal mucinous neoplasms, characterized by a villous or flat proliferation of mucinous epithelium with low-grade cytologic atypia. Hereby we discuss a case of 67-year-old male came to hospital with complaints of lower abdominal pain for 6 weeks.

Keywords: low-grade appendiceal mucinous neoplasm

Introduction

In up to 1% of appendicectomy specimens, malignancy of the appendix might be found. With an incidence of between 0.7 and 1.7%, among the rarest appendiceal tumours are low-grade appendiceal mucinous neoplasms (LAMNs).

Case Report: - A 67-year-old male came to hospital with complaints of lower abdominal pain for 6 weeks, insidious in onset, progressive in nature, no radiation of pain, history of RHD with double valve replacement surgery done 13 years back, known case of systemic hypertension for 15 years and on medications. On examination abdomen is flat, no warmth, tenderness present in right iliac fossa, rebound tenderness present, no guarding. USG shows acute appendicitis with minimal peri-appendicular fluid. Intra-op findings show inflamed appendix with appendiceal mucocele was identified. Patient developed Intra-op Ventricular arrhythmia, which was managed. Post operative follow-up with colonoscopy for one year showed no recurrence.

Microscopically shows: - Sections from the appendix shows denudation of mucosa with acellular mucin dissecting into the muscularis propria up to the subserosa. The resected margin is free of mucin.

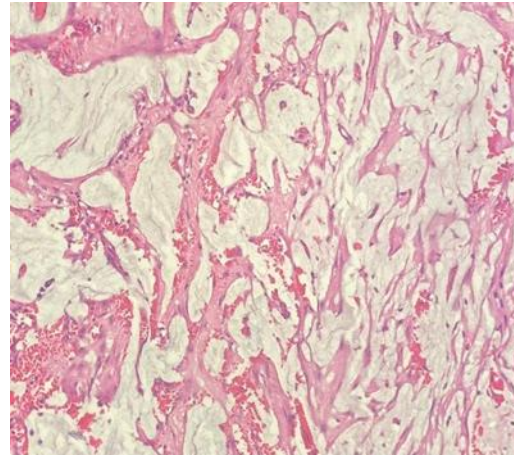
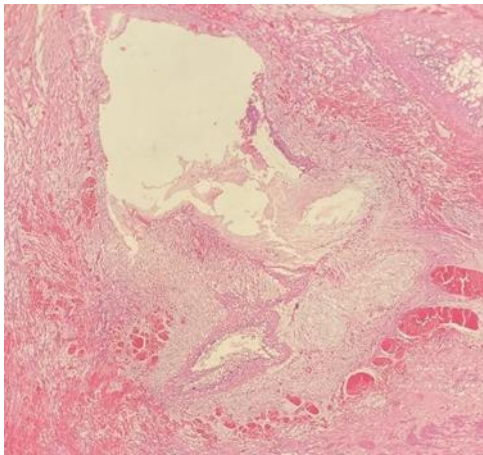
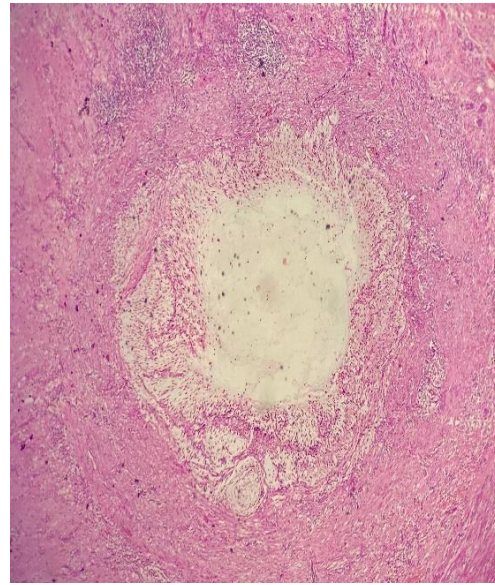
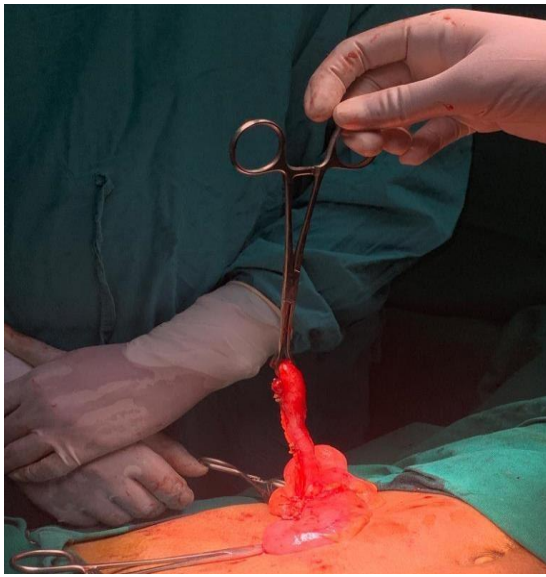
Tumour site- Distal half appendix Histologic type- Low grade appendiceal mucinous neoplasm Tumour size- Greatest dimension- 4.5cm.

Tumour extent- Acellular mucin invades through muscularis propria into subserosa but does not extend to Serosal surface.

Lymphovascular invasion - Not identified. Perineural invasion- Not identified. Margins- Resected margin- Negative for tumour and mucin.

Pathologic Stage Classification:

pT3 Tumour invades through the muscularis propria into the subserosa. pT3- LOW GRADE APPENDICEAL MUCINOUS NEOPLASM



Discussion

In up to 1% of appendicectomy specimens, malignancy of the appendix might be found. With an incidence of between 0.7 and 1.7%, among the rarest appendiceal tumours are low-grade appendiceal mucinous neoplasms (LAMNs).

LAMNs are generally referred to as "mucinous cystadenomas" and are distinguished by adenomatous changes in the appendiceal mucosa with unknown malignant potential. "Pushing invasion" though the appendiceal wall represents a typical pattern for LAMNs

A LAMN may be discovered accidentally during surgery or may show symptoms in the right lower quadrant. The main cause of symptoms is an intraluminal mucus collection that causes the

appendix to distend, or a mucocele; this unusual condition is found in 0.2- 0.4% of all resections .

The peritoneal cavity may gradually fill with mucus as a result of a perforated appendiceal mucinous tumour, which can culminate in pseudomyxoma peritonei (PMP). Regarding the kind and strategy of surgery, there is no universal agreement on the best way to treat appendiceal mucocele.

For cases of an intact appendix, appendicectomy and right hemicolectomy have been suggested; nevertheless, for cases of ruptured appendices with PMP, cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) have been suggested .

The identification of a primary mucinous appendiceal tumour is further complicated by the absence of particular tumour biomarkers. The tumour markers

CEA, CA19-9, and CA125 are frequently employed. According to a study by Zhang *et al.*, peritoneal spreading may have contributed to the majority of cases where preoperative tumour producers were high. Additionally, rather than being used as diagnostic biomarkers, CA19-9 and CA125 are primarily used in published papers as recurrence prediction indicators.

Conclusion

Overall, further research is required to develop a more precise approach of LAMN diagnosis, treatment, and monitoring. The classification of the condition, the tumour markers used, and the imaging modality used to make the diagnosis vary to date. In order to prevent recurrence, seeding, and the eventual development of PMP, it is crucial to create a high index of suspicion regarding the emergence of appendiceal malignancies and select the most suitable surgical or medication treatment option.

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