

Case Report

**APPENDICULAR CARCINOMA PRESENTING AS ACUTE
APPENDICITIS: A CASE REPORT**

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ABSTRACT

Primary adenocarcinoma of the vermiform appendix is a rare entity and is discovered by the pathologist following appendectomy for suspected appendicitis. We present a case of an 83 year old gentleman with primary mucinous adenocarcinoma of appendix presenting as acute appendicitis. He underwent limited resection of right colon. Histopathological investigation of specimen showed mucinous adenocarcinoma.

Keywords: *Vermiform Appendix, Malignancy, Carcinoma, Appendicitis*

INTRODUCTION

Primary adenocarcinoma of the vermiform appendix is a rare entity and is discovered by the pathologist following appendectomy for suspected appendicitis. Neoplasms of the appendix are found in 1% of all appendectomy specimens with a frequency of appendiceal adenocarcinoma in 0.1% of the specimen investigated. The incidence of neoplasm varies from 0.01 to 0.2 per 100,000 persons per year (Rassu *et al.*, 2002) and it constitutes less than 0.5 % of all gastrointestinal malignant neoplasms (O'Donnell *et al.*, 2007; McGory *et al.*, 2005; Ko *et al.*, 2004).

CASES

An 83 year old gentleman presented with symptoms of acute appendicitis, complaining of severe abdominal pain since two days and altered bowel and bladder habits. On examination vitals were within normal limits and examination of abdomen revealed tenderness in right iliac fossa. White blood cells counts were 18,000 on admission with neutrophilia. USG showed hypoechoic collection and a tubular structure in the right iliac fossa suggestive of ruptured appendix and periappendicular collection with interloop free fluid.

On table the abdomen was palpated for appendicular mass and no obvious mass was felt. Abdomen opened by a Gridiron incision revealed a mass with abscess in the RIF. Appendix could not be visualized separately. While mobilizing the mass a perforation was noted at the ileocaecal junction. The incision was extended and the ascending colon was mobilized with terminal ileum and caecum and a limited resection of the right colon was done with an end to side limited anastomosis between the terminal ileum and the ascending colon. The resected specimen was sent for histopathological analysis. Post operative period was uneventful.

The histopathology of the gross specimen showed tip of the appendix to be surrounded by hemorrhagic and necrotic tissue with a central irregular cavity. Two nodular areas were identified in the fat surrounding the ileocecal junction. Microscopy showed appendix with a tubulovillous neoplasm arising in the mucosa and protruding in the lumen. The neoplastic cells comprised of tall columnar cells, with elongated nuclei exhibiting crowding and pseudostratification. Circumferential mucosal involvement, extension into submucosa and into the serosa was present, with neoplastic cells lining the serosal surface. Two out of the 3 lymph nodes showed features of metastatic mucin producing adenocarcinoma.

Patient underwent CT abdomen post-operatively which did not show any specific findings other than prominent bowel loops. The patient was advised chemotherapy. Further surgery was deferred considering the age and general condition of the patient.

DISCUSSION

Mucinous adenocarcinoma is the most common cancer of the appendix. It accounts for 37% of all appendiceal neoplasms (Zagrodnick, 2003). This tumour may grow faster and can metastasize to the

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lymph nodes, liver and lungs. Survival in this type of tumour group is significantly worse than the other appendiceal carcinomas and it should be considered as a separate type of appendiceal malignancy because of its poor prognosis (Zagrodnick, 2003). The term for extensive spread of these tumours in the abdomen is peritoneal mucinous carcinomatosis (Sington *et al.*, 2002). It can also lead to pseudomyxoma peritonei that is commonly used to refer to widespread mucinous disease in the abdomen caused by either mucinous adenoma or mucinous adenocarcinoma. The presentation can mimic acute appendicitis, right iliac fossa (RIF) mass and intestinal obstruction (Terada, 2009). Mucinous neoplasm can also present with uncommon anatomical anomalies such as intestinal malrotation and situs inversus (Petrou *et al.*, 2010). Right hemicolectomy is considered to be the treatment of choice for the lesion beyond the mucosa and appendectomy alone for a localized lesion. The role and safety of laparoscopic appendectomy for management of the incidentally discovered appendiceal tumours has not been established (Lee *et al.*, 1997; Topkan *et al.*, 2008). Adjuvant multimodal treatment prevents the disease progression (Sayles *et al.*, 2010).

Conclusion

This case is presented for the rarity of Appendicular Carcinoma and to emphasize the fact that it is discovered usually by the pathologist following appendectomy for suspected appendicitis.. A formal right hemicolectomy is the standard treatment of appendicular carcinoma extending beyond the mucosa. In our patient right hemicolectomy was deferred considering the age and general condition of the patient.

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