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Clinical Image

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Synchronous Malignancy of Rectum and Adenoma of Appendix

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A 67 year old male presented to the department of surgical gastroenterology, with complaints of per rectal bleeding, altered bowel habits and decreased appetite with loss of weight since one month. Carcinoembryonic Antigen (CEA) levels were raised (5.8ng/ml). Investigations (Figure1A and 1B) revealed the diagnosis of rectal carcinoma (T2a N0 M0). Low anterior resection of the rectum in TME (Total Mesorectal Excision) plane was performed by double stapling technique with a diversion ileostomy. During the operation, the patient's appendix was found to be abnormally distended and elongated (Figure 2). Hence, an appendicectomy was also performed. Histopathological examination (Figure 3) revealed low grade appendiceal mucinous neoplasm grade 1 (pT1s), the base being involved by the tumor. The patient underwent six cycles of adjuvant chemoradiotherapy over the next year which resolved the abnormal metabolic activity at the site of the appendicular stump (Figure 4). A right radical hemicolectomy is planned at the time of stoma closure.

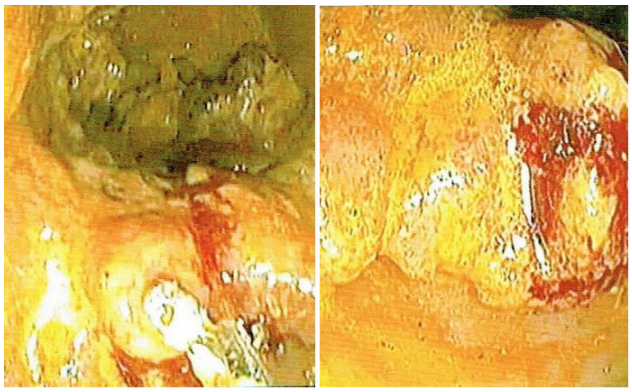

Figure 1A: Images of patient's colonoscopy depicting a large ulcerative growth 12 cm above the anal verge

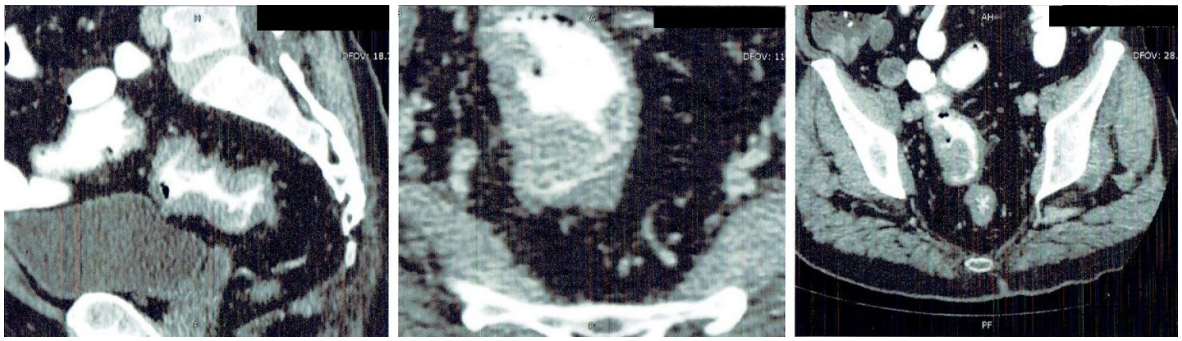

Figure 1B: Pre-operative contrast enhanced CT scan of abdomen depicting a circumferential asymmetric, enhancing wall thickening/ growth over a length of approximately 5 cm and 12 cm proximal to the anal verge seen involving proximal and middle part of rectum with significant luminal narrowing

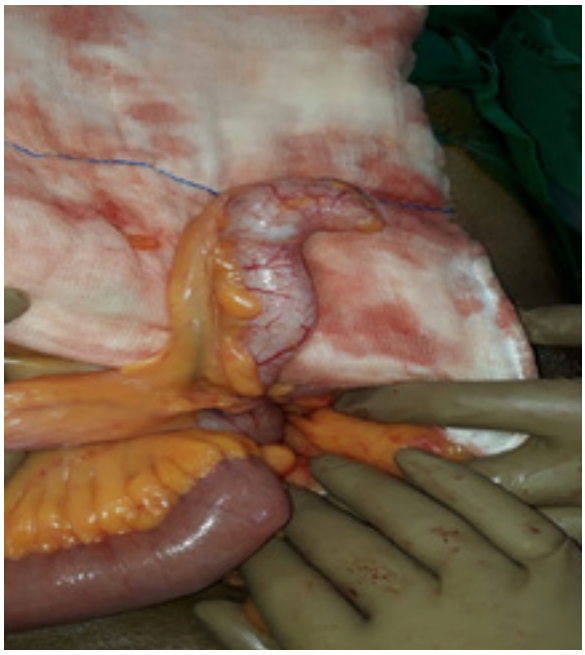

Figure 2: Intra-operative photograph of the abnormally distended and elongated appendix

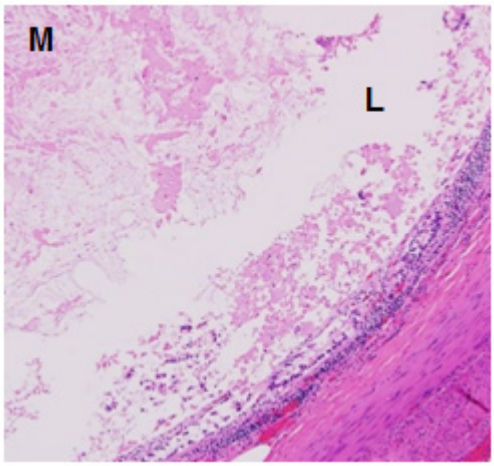

Figure 3: Photomicrograph (H&E x 10) depicting dilated lumen (L) of appendix filled with abundant mucin (M). Appendiceal mucosa appears flattened and atrophic. Neoplastic glandular epithelial cells are not seen – suggestive of a low grade appendiceal mucinous neoplasm

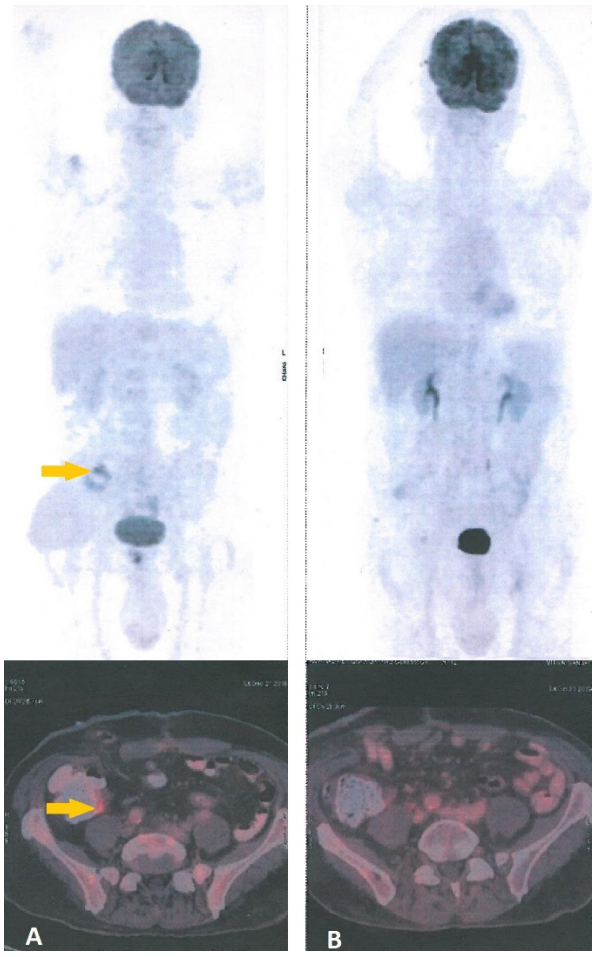

Figure 4: Comparative images of PET CT scan of the patient showing abnormal metabolic activity (FDG avid focus corresponding to appendicular stump - marked by yellow arrow) on post-operative day 30 (A) which resolved after six cycles of chemotherapy and radiotherapy (B)

Mucocoele of the appendix is an obstructive dilatation of the organ due to intraluminal accumulation of mucoid material. It is a rare disease, with an incidence of around 0.2% of all appendectomied specimens [1-4]. If perforated or ruptured, the mucocele may progress and epithelial cells may escape into the peritoneal cavity, which could lead to a grave and possibly fatal complication of pseudomyxoma peritonei [5]. The uniqueness of this case lies in the synchronous malignancy of rectum and

adenoma of appendix. Due to luminal narrowing and solid stools, preoperative colonoscopy could not proceed beyond the rectum. It was the clinical suspicion based on appearance of the appendix that prompted us to do an appendectomy. Hence, in conclusion, when unable to perform a complete pre-operative colonoscopy, it is imperative to clinically assess the large bowel and appendix in its entirety for clinical surprises if any.

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