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Case Report

Small Bowel Obstruction Caused by Carciniod Tumor in Ileum

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Abstract

Carcinoid tumor is one of the rare gastrointestinal tumors. We present here; a case of 54 years old woman with complete stricture in the Small Bowel at the ileum level, caused by a carcinoid tumour who underwent a laparotomy. After resection of the tissue, histopathology was confirmed carcinoid tumor as the casual stricture. A such a typical presentation in patients not having a mass in radiological studies except signs and symptoms of bowel obstruction should raise suspicion of a carcinoid tumor.

Keywords: Carciniod Tumor; Abdominal pain; Abdomen

1. Introduction

Carcinoids tumors are slow-growing well-differentiated tumor, which arises in the enterochromaffin cells (Kulchitsky cells), found in the crypts of Lieberkühn. These tumors were first described by Lubarsch in 1888; in 1907, Oberndorfer coined the term Karzinoide to indicate the carcinoma-like appearance and the presumed lack of malignant potential. The prevalence of carcinoid tumors ranges from 1-2 cases per 100,000 persons and slightly increased in the African American population [1]. A 25-30% of carcinoid tumor seen in the small bowel and more common in the ileum in 91% of the cases. Henrietta m Wilson reported that carcinoid tumor had seen 1 in 300

cases of small bowel carcinoma at autopsy. Although common in the ileum and it can be *Multicentricity* in 26-30% of the cases. Carcinoid tumor can found in the colon, but it is more common in the appendix nearly 80%, and usually presented with abdominal pain, obstruction, and metastasis that need surgical intervention. Ganesan and colleagues described the metastasis of these tumors are late and mostly metastasis in the liver. We present a rare case of carcinoid tumor with complete stricture in the Small Bowel at the ileum identified early and no metastasis seen in the radiological studies [2].

2. Case Presentation

A 54 years old woman came to the emergency department with generalized dull and colicky abdominal pain accompanied by nausea, vomiting, and obstipation started four days before admission. On physical examination, the abdomen was soft with mild tenderness in the periumbilical, right lower quadrant, and left lower quadrant without guarding, rebound tenderness, and a palpable mass. Digital rectal examination showed an empty rectum. Laboratory findings revealed normal WBC count, platelet count, liver function tests, serum electrolytes, amylase, and lipase tests. The patients showed mild renal failure (BUN-55mg/dl and Cr-2.5mg/dl). On erect Abdominal X-ray, there was an air-fluid level. Abdominal ultrasound showed significant dilatation in the bowel secondary to obstruction. Computed tomography of the abdomen confirmed the distended small bowel and fluid (Figure 1).

After clinical and imaging studies, laparotomy was performed, and intra-abdominal organs were exposed, 220 CM from tries ligament there was a complete obstruction by stricture and 10cm resection of small intestine and end to end anastomosis by a linear stapler, and excisional biopsy had performed. The diagnosis of carcinoid tutor was confirmed by the histopathologic report (Figure 2).

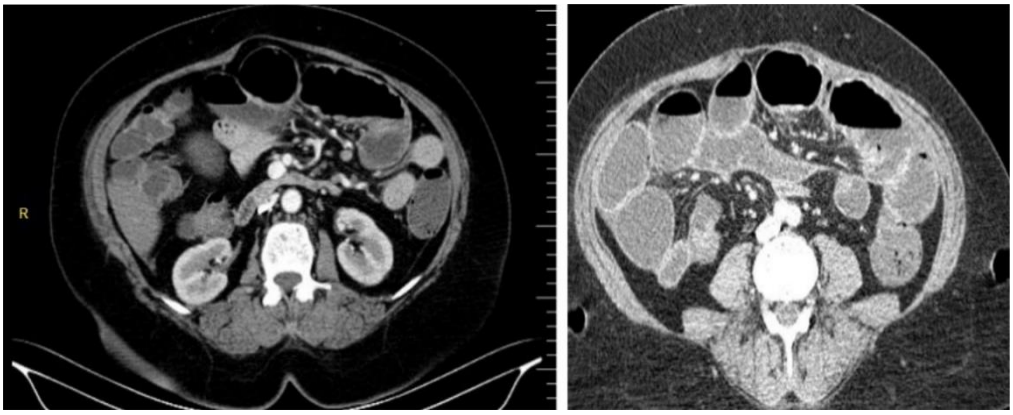

Figure 1: Computed tomography of the abdomen with intravenous contrast revealed distension of small bowel and fluid in the abdomen.

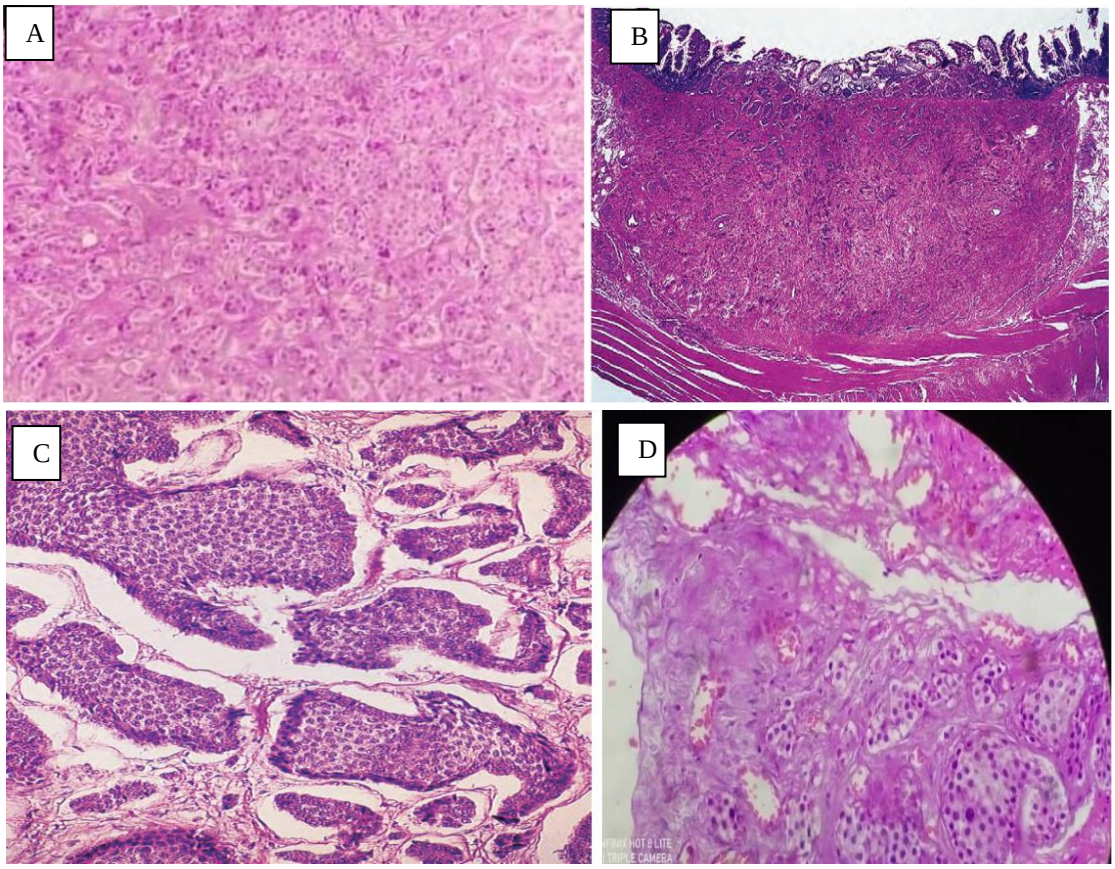

Figure 2: (A) Low power photomicrograph of a typical carcinoid tumor. Reproduced with permission from Ex-Dıgfer hospıtal. Pathology of small bowel malıgnancıes (Accessed on December 26, 2020); (B) Hıgh power view of ileal carcinoid tumor showing full-thickness involvement with a largely preserved mucosa; (C) Microscopically intermediate power showing tumor cells embedded in dense fibrous tissue; (D) Low power photomicrograph of a typical carcinoid tumor infiltrating into serosal surface.

3. Discussion

Carcinoid tumours is one of the rare gastrointestinal tumors. These tumors are identified as metastasis at the time of diagnosis due to their late presentations. Small bowel obstruction mainly related to abdominal pain, nausea, vomiting, constipation, and abdominal distention such presented our case. Jennifer Matulich et al. described that adhesions and hernia are the most common cause of small bowel obstruction. İn our case, the primary aetiology was stricture from the carcinoid tumor. They can be seen in the respiratory and Gastrointestinal tract, over 90% seen in the

Gastrointestinal tract, and accounted for 1.5% Gastrointestinal neoplasms. They are common in the ileum and appendix. Sayed Hamdi and associates reported that Carcinoid tumor is the most primary tumor of the small bowel and mesentery accounted about 95% of all carcinoid tumors and 1.5% of all Gastrointestinal tumors, where Khaled M. Moghazy and colleagues reported that carcinoid tumor in small bowel constitutes 20% of all cases and 90% seen in the ileum. Clinical presentation varies in hormonal and non-hormonal findings where non-hormonal is mainly from the mass effect of the tumor that causes obstruction or local reaction like stricture.

Our patient presented abdominal pain and distension related to the stricture associated with the local tumor reaction [3]. The hormonal symptoms are usually related to the tumor production of serotonin and bradykinin, tachykinins, and prostaglandins. The midgut carcinoid tumors cause carcinoid syndrome due to vasoactive hormones released in the systemic circulation. Our case had not presented with symptoms of carcinoid syndrome. Although it is not common, Douglas Jun Kamei et al. reported that carcinoid syndrome affects around 5-7% of the patients. Urinary excretion of 5HIAA is useful for the diagnosis of carcinoid tumors for patients with hormonal symptoms.

A CT scan and MRI imaging are useful for a patient with bowel dysmotility as our patient has symptoms of bowel dysmotility, and we preferred a CT scan that identifies a dilation of the bowel with fluid showing obstruction [4]. In general, less than 1cm primary tumors of the small bowel can be managed with local resection in contrast to that tumors more than 1.5 cm segmental resection with an extensive clearance of mesenteric drainage are suitable due to the high risk of recurrence. In our patients, stricture was noted intraoperatively and managed with segmental resection about 10 cm at the jejunum. In cases of liver metastasis can be managed by either liver resection or HAE. Both provide palliative management for hormonal and pain symptoms. Surgical resection has a prolonged survival rate compared to HAE, but is not curative [5]. Our patient was discharged home with a follow up of a CT scan every three months to check if there is any recurrence or metastasis.

4. Conclusion

Carcinoid tumor is one of the rare tumors in the Gastrointestinal tract, although it is one of the most primary tumors in the small bowel. Instances with constitutional symptoms and there are no specific radiological findings it is important to keep in mind the possibilities of carcinoid as the causal obstruction and to examine carefully the bowel inch to inch during operation.

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