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Linitis Plastic: A Rare Case of Double Gastric and Rectal Localization

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Abstract **Case Report**

The digestive linitis plastica is a special form of the little differentiate adenocarcinoma that can reach all the segments of the digestive tube, if the gastric localization is the most frequent, the double gastric and rectal localization is rare (7%) either is simultaneous or successive. The pathologic examination arrives only at the diagnostic of the digestive linitis without biasing against its primitive and secondary character. We report a case of this association in order to focus the importance of search and difficulty of the histologic diagnosis. This is a patient of 50 years, admitted to the emergency department of Hassan II University Hospital of Fez, Morocco for sub occlusion, The abdominal CT showed the presence of colonic and grelic distension, with double localization of gastric and rectal parietal thickening, high and low endoscopy was performed and objectified the appearance of a gastric and rectal linitis, with an anatomopathological examination which confirmed the diagnosis of gastric and rectal plastic linitis , the patient was operated and whose surgical exploration showed the presence of diffuse peritoneal carcinomatosis, palliative chemotherapy was indicated later, and the patient died 1 month later.

Key words: *Gastric linitis, rectal linitis, double localization*.

INTRODUCTION

Linitis Plastica (LP) denotes a diffuse, intramurally infiltrating, and anaplastic carcinoma in a hollow structure resulting in a shrunken organ with thickened walls. The term was initiated in 1779 by Lieudaut in order to describe a gastric scirrhous carcinoma presented as an extended, rigid and contracted lesion and characterized as an aggressive and highly lethal disease [1]. There is also a wide discrepancy among sources regarding the epidemiology of the tumor, as it accounts for 3-19% of all gastric carcinomas [2]. The neoplasm is encountered in every segment of gastrointestinal tract with the gastric localization being the most frequent and simultaneous or successive affection of different digestive sites rarely reported [3]. We report a rare case of plastic linitis with double gastric and rectal localization in a 50-year-old patient admitted to the emergency department in a sub occlusion.

CASE REPORT

This is a patient aged 50, admitted to the emergency room, for a sub occlusion, without any other associated sign.

The interrogation found the notion of epigastralgia and intermittent vomiting without triggering factors, with a notion of deterioration of the general condition. Moreover, there is no digestive hemorrhage or fever. The physical examination showed a slightly distended abdomen, flexible, without palpable mass, the rest of the somatic examination was without abnormalities. A radiograph without preparation showed some hydro-areal levels of hailic and colic type, the abdominal CT showed the presence of colonic and grelic distension with double localization of gastric and rectal parietal thickening. (figure1, 2), A colonoscopy was done showed an infiltrated and stenosing but passable aspect of the middle rectum (figure3), the assessment was completed by a gastroscopic oeso gastroduodenal fibroscopy, which was in favor of a gastric linitis, the histopathological examination of the biopsies that were carried out during the high and low endoscopy objectified the presence of the cells (in a kitten ring) (figure 4), confirming the histological diagnosis of gastric and rectal plastic linitis.

Surgery was decided and exploration revealed the presence of diffuse peritoneal carcinomatosis, hence the surgical abstention, Palliative chemotherapy was subsequently indicated, but the patient was dying during her hospitalization before starting chemotherapy.

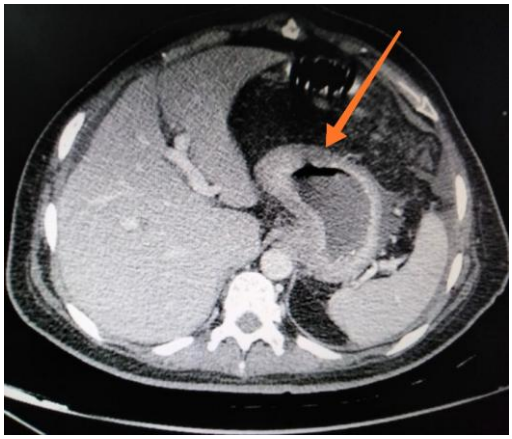

Fig-1: CT image shows gastric thickening

Fig-2: CT image shows rectal thickening in relation to rectal linitis

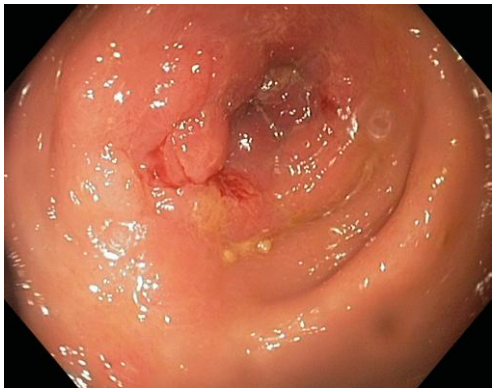

Fig-3: Colonoscopy shows the infiltrating and stenosing aspect of rectal linitis

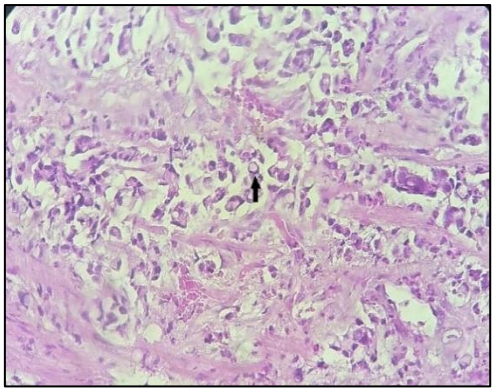

Fig-4: Microscopic image shows the histological appearance of plastic linitis: cells in a kitten ring

DISCUSSION

Linitis Plastica, a scirrhous carcinoma most commonly of gastric origin, is characterized by remarkable propensity towards diffuse infiltration, massive lymph node metastasis and peritoneal seeding. Despite the improvement in treatment outcomes lately achieved in other types of gastrointestinal carcinomas, the prognosis in LP remains extremely poor. Small bowel colon and rectum are atypical localizations of primary and metastatic plastic linitis, It can be confused with other entities such as chronic colitis, nonspecific enteritis or Crohn's disease [4 5], Rare cases of primary linitis of primary origin in the colon and rectum are described [6]. Kondo and al [7] describe metastatic plastic linitis in the original stomach in the rectum, in another study, Correia *et al.* [8] described a case of slow-growing plastic linitis manifesting as simultaneous involvement of the entire gastrointestinal tract from the stomach to the rectum. The double digestive, synchronous or metachronous localization remains rare [3], this is the case of our patient who has a gastric and rectal linitis, of discovery during an occlusive syndrome.

Epigastric pain combined with progressive dysphagia to both liquids and solids and severe weight loss constitute the most frequent clinical signs. Clinical examination is usually unremarkable and biological indices within normal limits. Rare relative presentations include worsening symptoms of gastric outlet obstruction, haematemesis, gastrointestinal bleeding and perforation. Clinical manifestations of pseudoachalasia secondary to massive invasion of the gastric walls and the cardia are not infrequent [9]. Co-morbidities such as tuberculosis, Crohn disease and sarcoidosis responding to corticosteroids have also been reported [10]. Cases of gastric metastasis simulating LP-type carcinoma from primary rectal lesion present with signs of iron deficiency anemia, recent fecal incontinence, lower colicky abdominal pain and distension, bleeding, diarrhea or complete intestinal obstruction due to gradual narrowing of the bowel lumen. Rectal examination reveals circumferential, constricting, irregular mass with-out irritability, but even then, establishing an ac-curate differential

diagnosis is difficult [11]. A case of primary LP involving the entire colon, ileum and appendix has also been described [12].

The discovery of gastric LP makes a systematic, endoscopic and radiologic complete physical evaluation necessary in order to identify other possible sites of involvement in the digestive tract; this darkens singularly the prognosis and complicates the therapeutic attitude. The intestine is depicted contracted and non-distensible at endoscopy with midrectal stricturing, though the mucosa appears normal as the disease is mainly submucosal. A circumferential, hard and irregular mass is usually obvious. Nevertheless, the mucosa is frequently not ulcerated and an intraluminal mass is scarcely seen, while tapered and poorly delineated margins, along with an intact mucosa, are in contrast to the sharply demarcated overhanging edge usually observed in colorectal cancers [13]. LP should be care-fully distinguished from the lymphangiosis type of colorectal cancer that presents similar diffusely infiltrating growth and different pattern of histological spread, cell differentiation, recurrence and metastatic sites [14]. Abdominal CT is performed to exclude primary or secondary disease elsewhere in the abdomen or pelvis. Marked thickening of the rectal wall and perirectal fascia is confirmed [15].

Surgical exeresis includes total gastrectomy, while upper polar esogastrectomy has also been suggested [16]. Furthermore, sufficiently effective chemotherapy has not been documented; the optimal management for rectal LP is surgical excision whenever feasible. Alternative procedures include abdomino-peritoneal resection, posterior or total pelvic exenteration and low anterior resection of the rectum depending on the site and progression of the disease. Radiation therapy and chemotherapy are reported to be of limited benefit for LP carcinoma of colorectal origin. Most patients are administered oral or parenteral 5-FU-related agents. The clinic pathological background, ability of surgery to be curative and survival after the initial operation vary in accordance with patient's clinical evolution. Commonly, although an absolutely therapeutic procedure is performed, widespread metastasis occurs a few months after discharge. As far as our literature review is concerned, such early recurrence and poor prognosis are characteristic of LP type colorectal cancer even after complete resection of the tumor [17]. Nevertheless, in a small number of cases, long-term survival was achieved despite the presence of lymph nodes metastasis, possibly attributed to the therapeutic regimen using high-dose cisplatin and long-term oral UFT.

CONCLUSION

Linitis plastic of digestive tract is able to be differentiated from other more frequent types of gastrointestinal cancers by its scirrhous appearance, high incidence of peritoneal implantations and extremely poor prognosis., Double gastric and rectal localization among the forms of this disease which remains rare, To determine the appropriate treatment modalities for this peculiar type of cancer, the accumulation and analysis of individual clinical aspects is necessary after meticulous sub classification and characterization of the disease.

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