Primary Linitis of the Colon Is a Rare Tumor

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Abstract

Primary colic linitis is a rare tumor .colonic biopsies are frequently negative. The search for a primitive is imperative, because only its negativity affirms the primary character of the tumor. The endoscopic exploration shows the integrity of the mucosa, with a narrowing lumen or impassable stenosis. The diagnosis is based on particular pathological criteria: submucosal spread and a scirrhous carcinoma with diffuse thickening and hardening of the bowel wall consisted of independent signet ring cells. Immunohistochemistry could help in the differential diagnosis between primary colonic ADK (CK7-; CK20+) and colonic metastasis from gastric linitis (CK 7+, CK 20). In our case, tumor cells were positive for CDX2 (intensive and diffuse marking). Primary colic linitis is a rare but extremely aggressive, diagnosed at a late stage. Lymphatic metastases often found at the time of the diagnosis makes the prognosis very pejorative.

Introduction

Primary colic linitis is a rare tumor. The diagnosis is usually delayed and based on particular pathological criteria: submucosal spread.

Case Report/case Presentation

We report a case of a 38 years old female with no pathological medical history, who presented with a dull spasmodic abdominal pain aggravated by a subocclusive episode. The physical exam showed a diffuse abdominal distension. Abdomino -pelvic scan revealed a thickening in the descending colon, three cm in diameter, obstructing the colonic lumen (Fig. 1). Two Colonoscopies confirmed the presence of an obstructing lesion in the descending colon.

This lesion wasn’t passable and the colon upstream wasn’t explored. Biopsies showed an inflammatory cellular material with no tumoral cells. There was no biological inflammatory syndrome, or anemia and tumor markers CEA and CA19-9 were normal. With the recurrence of sub-occlusive symptoms and the CT scan aspect, patient was operated by open laparotomy. Exploration discovered a 5cm tubulated mass, in the descending colon with a distended colon upstream. There was no adenopathy, peritoneal nodules of carcinosis or hepatic nodules. A left colectomy was performed with the confection of colostomy according to Bouilly Volkman. Pathology confirmed poorly differentiated adenocarcinoma infiltrating the entire colonic wall, with Signet-ring cells. The surgical outcomes were simple. The patient was referred to the oncology clinic for further chemotherapy.

Discussion/conclusion

The diagnosis of the colic linitis is difficult, considering its rarety and biopsies that are frequently negative [1].

Colic linitis affects equally males and females with a young age trend with invasion of the ganglions (86%) and the peritoneum but rarely hepatic metastasis [2].

Linitis plastica occurs most frequently in the stomach. Colonic involvement is usually secondary to a primary gastric localisation [3].

Primary linitis of the colon develops primarily on the left colon. Transverse colon localization suspects a secondary linitis with a gastric starting point [1].

The search for a primitive is imperative, because only its negativity affirms the primary character of the tumor [2].

The endoscopic exploration shows the integrity of the mucosa, with a narrowing lumen or impassable stenosis. Biopsies are negative in 50% of the cases that's why it's interesting to do deep biopsies, even surgical [2].

In this case, the diagnosis was based on the histopathological examination of the specimen with specific aspects including: 1) macroscopically: A rigid and tubulated segment of the colon with the retraction of the mesos,

2) Microscopically: a scirrhous carcinoma with diffuse thickening and hardening of the bowel wall consisted of independent signet ring cells (fig 2), mostly muco-secreting localized in the sub-mucosa and muscularis (fig

3+4) respecting the mucosa, plus an important fibrous stroma reaction [1].

Immunohistochemistry could help in the differential diagnosis between primary colonic ADK (CK7-; CK20+) and colonic metastasis from gastric linitis (CK 7+, CK 20 -) [4].

In our case, tumor cells were positive for CDX2 (intensive and diffuse marking) (fig 5).

The prognosis of primary colic linitis is usually poor, because of the lymphatic metastases often found at the time of the diagnosis [3].

The average survival in the Shirouzu series was 10 months (extremes: 5-13 months) from the 6 patients with primary colorectal linitis [2].

Declarations

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Statement of Ethics:

The patient have given her written informed consent to publish her case (including publication of images).

Conflict of Interest Statement:

The authors have no conflicts of interest to declare.

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Author Contributions:

Dr.Mossaab Ghannouchi: primary author and operating surgeon , Dr. moussa ameni: coauthor ; Dr. mohamed ben khlifa and Dr. asma chaouch: both involved in the clinical evaluation of the patient , intervention, and follow-up, Dr. karim Nacef:critically reviewed the drafts:, Prof. moez boudhokhan: supervision of report writing

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Figures

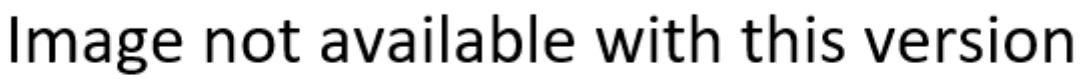

Figure 1

Abdominal scan: tubulated aspect of colic linitis

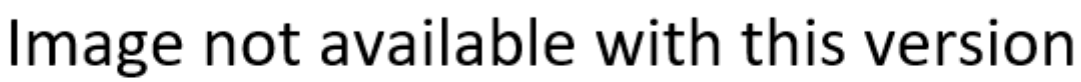

Figure 2

Invasive colonic ADK with signet ring cells features

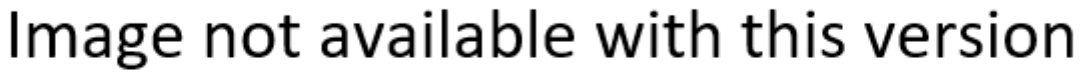

Figure 3

Low power view, HE staining: the signet ring cells reach the serosa

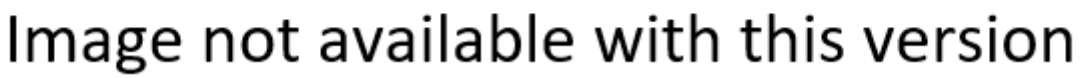

Figure 4

The tumor cells dissociate the muscularis

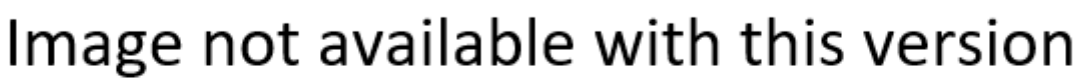

Figure 5

Immunohistochemistry staining for CDX2 showing a diffuse and intensive marking