

An unusual cause of constipation by a rectal mass

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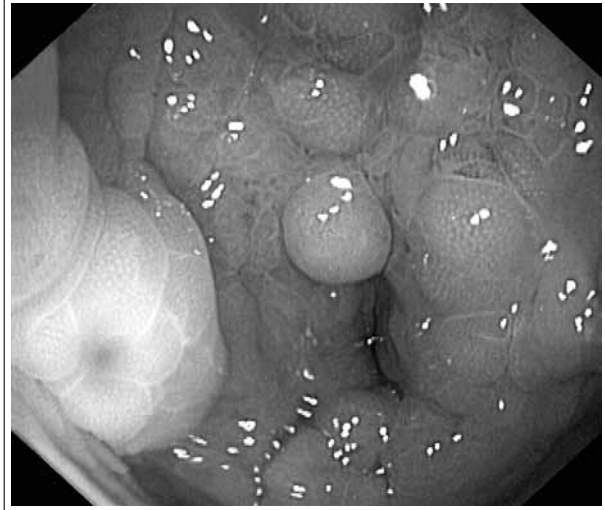
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CASE REPORT

A 65-year-old female patient presented at the emergency department with a four-week history of total constipation, 4 kg weight loss and mild nausea. There was no medical history of note and blood tests were normal besides a microcytic anaemia (haemoglobin 6.3 mmol/l). Rectal examination revealed a rigid mass filling the whole lumen. Further physical examination was unremarkable. Colonoscopy was performed showing a vitreous, circular growing, non-ulcerative mass of 10 centimeters in length (*figure 1*). Biopsy of the lesion showed hyperplastic tissue and some atypical cells; no dysplasia was found. The diagnosis of primary colorectal adenocarcinoma was rejected since atypical cells were only found beneath the muscularis mucosa – leaving the mucosa relatively spared – and immunostains did not meet the criteria (CDX-2 negative, cytokeratine (CK) 20 negative and CK7 positive).

Computed tomography of thorax and abdomen showed profound mediastinal, intra- and retroperitoneal lymphadenopathy and lesions in the lungs suspicious for metastatic disease. Besides the rectal mass no abnormalities of other abdominal organs were seen. X-ray of the colon with contrast showed no additional obstruction elsewhere in the bowel.

Figure 1.



**WHAT KIND OF INVESTIGATION
NEEDS TO BE DONE NEXT TO MAKE
THE DIAGNOSIS?**

See page pagina 329 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (PAGE PAGINA 326)
AN UNUSUAL CAUSE OF CONSTIPATION BY A RECTAL MASS

Gastroscopy demonstrated a poorly distensible stomach with an ulcerative mass involving the majority of the viscus. Biopsy showed a poorly differentiated adenocarcinoma and chronic inflammation. Signet ring cells were present (figure 2). No *Helicobacter pylori* was found. Morphological appearance resembled the rectal mass. Linitis plastica of the stomach with metastatic disease in the rectum was diagnosed.

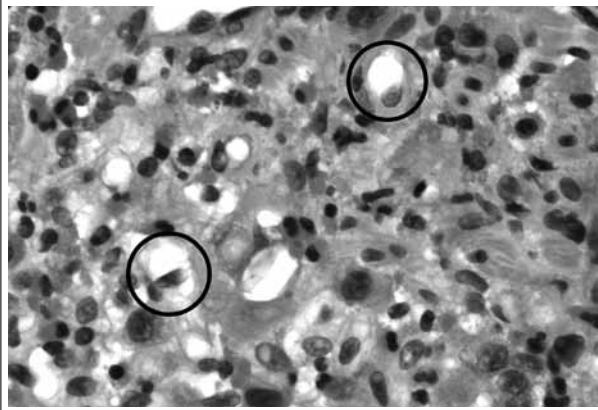
The term linitis plastica refers to the desmoplastic inflammatory-like reaction that tumour cells or their products elicit in the stroma, often more striking than the infiltrative cells themselves. This reaction makes hollow

organs rigid with thickened walls, as can be seen on CT and during endoscopy in progressive disease.¹

Linitis plastica-type gastric carcinoma is a poorly differentiated adenocarcinoma accounting for a maximum of 14% of the advanced gastric cancers.² Histological examinations reveal independent signet ring cells infiltrating in deeper layers of gastric tissue, leaving the mucosa relatively intact. The latter makes endoscopic diagnosis often difficult. Deeper biopsies might be necessary.³

The stomach is the most common primary site of metastatic linitis plastica; however, other sites include the breast, gallbladder, bladder and prostate gland. Metastases, when present, can virtually always be found in the peritoneum and often in the gastrointestinal tract.^{1,3} The prognosis is very poor with a five-year survival of less than 10%.^{2,3}

Figure 2.



REFERENCES

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2. Odze RD, Goldblum JR. *Surgical pathology of the GI-tract, liver, biliary tract, and pancreas.* 2nd edition. Saunders Elsevier 2009; 567-8 and 577-8.
3. Mastoraki A, Papanikolaou IS, Sakorafas G, Safioleas M. Facing the challenge of managing linitis plastica – a review of the literature. *Hepatogastroenterol.* 2009;56:1773-8.