CASE REPORT

Mistaken identity: endometrial or rectal cancer?

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SUMMARY

A 59-year-old woman with a previous history of endometrial and breast cancer was referred to the colorectal rapid access clinic with abdominal cramps, per rectal bleeding and diarrhoea. CT, MRI and flexible sigmoidoscopy confirmed a rectal tumour and due to its appearance, it was thought to be a primary rectal malignancy. The patient underwent an anterior resection and end colostomy. Histology confirmed a metastatic endometrial adenocarcinoma, which is an unusual site for endometrial metastasis. Her postoperative recovery has been unremarkable and the patient has subsequently been discharged from the general surgical team.

BACKGROUND

There are very few cases of rectal secondary tumours from endometrial primary malignancies reported in the literature. It is important to remember that patients with a previous history of malignancy presenting with suspicious symptoms may be due to metastasis from a previous cancer rather than a new primary.

CASE PRESENTATION

This patient was referred by her general practitioner to the colorectal rapid access clinic with symptoms of increasing abdominal cramps for 4 months. This was associated with urgency, increased frequency, incontinence and tenesmus. She had also noticed her stool was mixed with mucus and blood. There had been no weight loss but the patient noted a decreased appetite.

Her medical history included grade 2 FIGO stage 1B endometrial adenocarcinoma 6 years ago, treated with total abdominal hysterectomy, bilateral salphingo-oophorectomy and pelvic lymphadenectomy and grade 1 T1 N0 ER positive invasive ductal carcinoma on her right breast 7 years ago, treated with wide local excision and axillary node sampling, radiotherapy and hormone therapy (tamoxifen and zoladex). She also has type 1 diabetes mellitus and hypertension.

She has a family history of an aunt with breast cancer and two cousins with unknown cancers.

On examination in the clinic, she looked well with a generally tender but soft abdomen. Rectal examination was tender anteriorly with possible external compression but no intraluminal masses. Rigid sigmoidoscopy visualised altered blood mixed with stools.

INVESTIGATIONS

Tumour markers were cancer antigen 125 (CA 125) 42 kU/L (reference range 0–35 kU/L),

Figure 1 Flexible sigmoidoscopy image of rectal tumour.

carcinoembryonic antigen <1.0 µg/L (reference range 0–5 µg/L) and CA 19-9 10 kU/L (reference range 0–37 kU/L). CT of the chest, abdomen and pelvis were suspicious of intraluminal proximal rectal mass but no evidence of distal metastasis. Flexible sigmoidoscopy found a suspected malignant lesion at 10 cm from the anorectal verge ([figure 1](#)). Histology included immunohistochemical staining from biopsies of the rectal lesion. The immunohistochemical profile was positive for CK7 and negative for CK20 and CDX2 and therefore confirmed a moderate to poorly differentiated adenocarcinoma most likely of gynaecological origin ([figure 2](#)). MRI showed a large bulky rectal tumour with no direct invasion ([figure 3](#)) and the presumed rectal primary tumour was staged at T3b

Figure 2 Sagittal view of MRI of the pelvis showing the rectal tumour.

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Figure 3 Histopathology H&E stain slide of the rectal biopsy (×10 magnification).

N2. The consensus from the lower gastrointestinal multidisciplinary team was that the appearances from imaging and endoscopy leaned towards a diagnosis of a primary rectal tumour even though there was some ambiguity from the biopsy histology.

DIFFERENTIAL DIAGNOSIS

Differential diagnosis included large polypoid rectal polyp (giant villous adenoma), primary rectal malignancy, which would be more likely based on current literature and the appearances of tumour. However, taking into account the patient's history, the other differential was a metastatic lesion from her previous endometrial or breast cancer.

TREATMENT

After discussion with the colorectal multidisciplinary team, the consensus was to treat this case as a rectal primary and offer the patient an anterior resection with an end colostomy after taking into account the previous history. This is in line with the current Association of Coloproctology of Great Britain and Ireland (ACPGBI) guidelines for rectal cancer.¹

On macroscopic inspection of the tumour there were no signs of infiltration and it was still thought to be a primary rectal tumour. There was no sign of direct invasion from the tumour. Histology showed resection was clear and no lymph nodes were involved out of the 45 retrieved. However, morphological and immunohistochemical staining results surprisingly confirmed a metastatic endometrioid adenocarcinoma. Her postoperative period was unremarkable. Following surgery, she underwent adjuvant chemotherapy, as per the European Society for Medical Oncology (ESMO) guidelines for endometrial cancer.² Radiotherapy was not performed due to extensive bowel loops in the lower pelvis increasing the risk of future complications.

OUTCOME AND FOLLOW-UP

Eleven months on from the procedure, this patient is doing well. She eats and drinks normally with no problems with the stoma. There has been no further rectal bleeding. Follow-up CT scan has not shown any recurrent disease. She is currently not keen to reverse her stoma and has subsequently been discharged

from the general surgeons and is continued to be followed up by the oncologists.

DISCUSSION

There have been very few reports of endometrial cancers metastasising to the rectum in literature. More common sites for endometrial metastasis are the lungs, liver, bone, brain and the lymph nodes.

A study by Bailey and Gilbert³ described two patients with secondary rectal cancers from endometrial primaries, which had been treated 5 and 7 years previously with hysterectomy and radiotherapy. These were treated surgically with Hartman's and omentectomy (due to omental deposits) and anterior resection, respectively. The authors noted that macroscopically, the appearance of all the tumours were similar to primary rectal cancers and emphasised the importance of immunohistochemical investigations.

Another case of rectal metastasis was reported by Sawada and Yamamoto.⁴ The metastasis was originally assumed to be a rectal cancer with infiltration into the vagina, but subsequent investigation found an endometrial primary tumour, with direct infiltration of the rectum and vagina. This patient had no previous history of cancer and was managed with a very low anterior resection, bilateral salpingo-oophorectomy, total abdominal hysterectomy and pelvic lymphadenectomy with subsequent chemotherapy.

Learning points

- ▶ Metastasis should be considered in any suspicious lesions in a patient with previous malignancy.
- ▶ Metastasis can present many years from the initial diagnosis and treatment of the primary cancer.
- ▶ It is important to give all relevant clinical details to the pathologist, including all previous malignancies and the associated possibility of a metastasis, so appropriate investigations, including immunohistochemical staining, can be performed to confirm the likely origin of the tumour.

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Competing interests None.

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