CASE REPORT

Constipation: take it seriously

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SUMMARY

A case report of a young, healthy female who presented as an emergency with large bowel obstruction secondary to a rectosigmoid tumour. Acute presentation was preceded by a progressive history of change in bowel habit managed medically in the community with laxative treatment. The family history of note included breast cancer of an identical triplet aged 41 years. An emergency Hartman's procedure was successfully performed the same day as presentation due to the high risk of perforation. The patient was discharged home within a week. Histology confirmed adenocarcinoma, Dukes' Stage C and oncologists have now taken over care of the patient. Discussion points explore whether it is appropriate to refer a young healthy patient presenting with a change in bowel habit if she is resistant to medical management in the community and in the absence of other red flag symptoms. The family history of malignancy and genetic associations are also considered.

BACKGROUND

Constipation is a common presenting symptom in primary care and is usually benign; however, it is important to consider the underlying pathologies relevant to the age groups being managed. National Institute for Health and Care Excellence (NICE) guidance for management of constipation in adults is far less comprehensive than it is for children. This case highlights the importance of patients being followed up in primary care and the need for ongoing assessment to identify progression or resolution of symptoms.

CASE PRESENTATION

A fit and healthy 45-year-old Caucasian woman presented with a 6-month history of change in bowel habit, managed in the community. There was no history of irregular bowel habit. The symptoms comprised progressive constipation and abdominal bloating unresponsive to medical management. This culminated in presentation to the A&E department with abdominal distension, severe abdominal pain and a 3-week history of absolute constipation.

In the preceding 6 months, symptoms were intermittent and interposed with severe spasmodic abdominal pain. The patient had four appointments at the general practitioner (GP) clinic during this time and was seen by the nurse practitioner. The GP was called for an opinion during the first visit; however, the patient was not reviewed by a doctor during her subsequent visits. On the day of presentation to the hospital, the patient attended an emergency appointment at the GP surgery and

was advised by the nurse practitioner that this was just a case of constipation and therefore self-limiting. However, upon the patient's insistence, the GP was called for an opinion. After taking a history and clinically assessing the patient, the GP advised an ambulance be called immediately as an attendance to the accident and emergency department was necessary.

There was no medical history of note in this case. The family history included a sister (one of identical triplets) with breast cancer at the age of 41 and the other sister is currently being investigated for likely colorectal malignancy.

On examination there was generalised abdominal pain, significant distension and normal bowel sounds. The patient did not reveal any blood staining or intraluminal masses; however, there was a palpable, adnexal mass. Cardiovascular parameters were stable; however, the patient was requiring morphine for pain control.

INVESTIGATIONS

Initial blood results were as below:

- ▶ White cell count and C reactive protein (CRP) were marginally raised.
 - ▶ Arterial blood gas analysis revealed a normal lactate and all other parameters were also noted to be within the normal range.
 - ▶ Haemoglobin: 141
 - ▶ White cell count: 14.9
 - ▶ Urea: 7.1
 - ▶ Creatinine: 72
 - ▶ Potassium: 3.9
 - ▶ Sodium: 137
 - ▶ CRP: 11
 - ▶ Amylase: 56
 - ▶ Alkaline phosphatase: 46
 - ▶ Alanine transaminase: 12
 - ▶ Bilirubin: 28
- Biochemical markers of malignancy were as follows with a significantly raised carcinoembryonic antigen (CEA):
- ▶ CA-125: 52 (0–35)
 - ▶ β -HCG: <1
 - ▶ CEA: 88.8 (0–3.8)
 - ▶ CA19–9: 8 (0–34)
 - ▶ α -Fetoprotein: 4 (0–6)

Plain chest radiograph was normal and did not show any free air under the diaphragm. Abdominal radiograph showed multiple markedly dilated large bowel loops. A CT scan was performed for further evaluation. This revealed large bowel obstruction; at the level of obstruction, the rectosigmoid wall was noted to be thickened and in contact with a large complex pelvic mass arising from the left ovary. There was threatened 'blow out' of the

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Figure 1 The arrow demonstrates a complex left cystic mass with compression of the rectosigmoid colon 10×6 cm.

caecum with a maximum diameter of approximately 9 cm as demonstrated in [figure 1](#).

DIFFERENTIAL DIAGNOSIS

Mechanical large bowel obstruction secondary to:

- ▶ Ovarian malignancy,
- ▶ Benign ovarian pathology, for example, cyst, endometrioma,
- ▶ Colorectal tumour,
- ▶ Volvulus,
- ▶ Diverticular abscess—unlikely as no temperature and only marginally raised inflammatory markers,
- ▶ Pancreatitis—presentation not typical of pancreatitis, no predisposing risks and a normal amylase therefore very unlikely,
- ▶ Faecal loading—a possible cause but unlikely in view of the imaging findings.

TREATMENT

The management plan was to proceed to laparotomy based on clinical findings and imaging. The patient had severe pain, which was only partially responsive to morphine and together with the high risk of caecal perforation, immediate surgical intervention was necessary. The patient was booked onto the emergency list and the operation was performed on the day of presentation.

Intraoperative findings revealed a large left adnexal cyst of benign appearance which was removed by the gynaecologists. However, underlying this was a large rectosigmoid tumour, which was the true cause of the large bowel obstruction. A Hartmann's procedure was performed. There were no post-operative concerns, the stoma was functional within 3 days and the patient made a good, uncomplicated recovery and was discharged home within a week.

OUTCOME AND FOLLOW-UP

Histology confirmed complete resection at all margins of an invasive moderately differentiated Dukes' Stage C adenocarcinoma at the rectosigmoid junction. There was involvement of the peritoneum, left ovary and metastases to 5/15 mesenteric nodes. On immunohistochemistry the ovary was strongly positive for CK20 and CEA and negative for CK7—an immunoprofile in keeping with ovarian metastases from a primary colonic malignancy.

The patient was reviewed in the surgical outpatient clinic and has continued to make a good postoperative recovery. There are

no concerns from a surgical perspective and the stoma continues to function well.

The patient has begun chemotherapy treatment and is now under the care of the oncologists.

DISCUSSION

The main symptoms of colorectal cancer comprise: rectal bleeding, anaemia, abdominal pain, bloating and change in bowel habit,¹ for example, constipation, diarrhoea. These patients will predominantly present in the primary care setting and be referred on to colorectal services as deemed appropriate. There is a proportion, as in this case, that will present as an emergency with malignant obstruction, perforation or significant bleeding.

In patients presenting with these symptoms in the community, it is imperative to differentiate benign from malignant disease as early as possible. This is challenging as the majority of these are common symptoms that are far more likely to be associated with a benign condition. Filtering out those with an underlying malignancy is largely dependent on history and clinical examination. Furthermore, this may not raise any of the 'red flag' symptoms of suspected cancer and therefore it is often a case of following up patients with ongoing assessment in the community to monitor the course to resolution or progression.

Colorectal malignancy is well documented in young adults. Therefore an index of suspicion for this disease should not be reserved solely for the ageing population presenting with bowel symptoms. It should be an exclusion criterion in the assessment of young adults presenting with unprecipitated gastrointestinal disturbances.

In this instance, constipation was the primary complaint. The NICE guidelines² for constipation in children are comprehensive but are less so for adults. It is unclear as to when referral is appropriate for cases of constipation resistant to medical management. In this case, in the month preceding emergency admission via A&E, there had been absolute constipation for 3 weeks unresponsive to the lactulose, fybogel and movicol advised by the GP initially. This duration of constipation coupled with severe, spasmodic pain and abdominal distension is strongly suggestive of mechanical obstruction even in the absence of vomiting. An acute presentation superimposed on a background of subacute symptoms is arguably suggestive of an evolving process. Furthermore, in a young, previously healthy adult presenting with an unprecipitated change in bowel habit it is important to consider the possibility of significant underlying pathology.

As there were no other red flags suggestive of malignancy it is reasonable to manage this conservatively at initial presentation and monitor symptoms in the community. However this patient was not followed up by a doctor. Subsequent visits whereby the patient presented with the same symptom were triaged as being suitable for nurse practitioner review and the patient was reassured that her symptoms were self-limiting. Ideally, patients presenting with the same symptom more than once should be reviewed by a doctor and if possible subsequent follow-up arranged with the same doctor in order for a comparison to be made clinically as to whether symptoms are resolving or progressive.

In the context of this case, the family history is extremely relevant. Familial predisposition to bowel malignancy is well documented. As one of the identical triplets, who had been diagnosed with breast cancer at a young age, a neoplastic process should be considered early on and investigated or excluded appropriately. Even in the absence of a positive family history this is an important avenue to consider.

To date, there has been no gene identified linking breast and colon cancer. However, a family history of malignancy in first degree relatives is well documented in young patients presenting with malignancy. Rawal *et al*³ conducted a population-based study in Denmark exploring the risk of breast and other types of cancers in first-degree relatives of young patients with breast

cancer, that is, those under 50 years of age. This was a comprehensive study and their results suggest a significantly increased risk of developing neoplasms of the breast, ovary, cervix, colon and gallbladder. Therefore, it seems reasonable that even in the absence of a known syndrome or identified oncogene, the possibility of malignancy must be considered in the assessment of patients with a family history of early onset cancer and that this should be incorporated into the risk stratification of symptoms. Where genetically identical individuals are being considered this association is of greater value.

Learning points

- ▶ Consideration of age-appropriate pathology underlying presentation of common symptoms.
- ▶ Appropriate follow-up in primary care within a timescale negotiated with the patient to assess progression/resolution of symptoms.
- ▶ Patients presenting more than once with the same symptom in primary care to be seen by a doctor.
- ▶ Consideration of further investigation, for example, blood tests and referral when malignancy cannot be definitely excluded and symptoms are unresolving.
- ▶ The importance of relevant family history and clinical examination in the context of the presenting symptom.

Contributors All the authors were involved in the writing of this article and development of discussion ideas.

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