Diagnosis of Colorectal Carcinoma in the Younger Population Amidst Mental Health Challenges

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Abstract

This case report explores the diagnosis of colorectal carcinoma in a 42-year-old female with a history of anxiety and irritable bowel syndrome (IBS). Colorectal cancer, commonly diagnosed in individuals over 60, is increasingly being identified in younger populations. The patient presented with intermittent gastrointestinal symptoms, initially managed as IBS, and underwent stepwise investigations including blood tests, stool cultures, and imaging, all yielding non-concerning findings. However, a positive faecal immunochemical test (FIT) led to a colonoscopy, confirming colorectal carcinoma. The case highlights the complexities of diagnosing serious conditions in patients without obvious red flags, the importance of timely screening, and the impact of mental health on diagnostic delays. The report also discusses the challenges of primary care systems, such as continuity of care and the patient's mental health history, which potentially delayed diagnosis and treatment.

Keywords: Colorectal cancer, younger population, Irritable bowel syndrome (IBS) Faecal immunochemical test (FIT), Mental health, Diagnostic delays, Primary care Screening, anxiety, Multidisciplinary team (MDT)

Introduction

This case report goes through the journey of a 42 year old female patient getting diagnosed with colorectal carcinoma.

Bowel cancer is a common type of cancer in both men and women - it is the 4th most common cancer in the UK, with over 42,000 people diagnosed every year. About 1 in 20 people will get it during their lifetime.

Most people diagnosed with Colorectal cancer are over the age of 60. The diagnosis of Colorectal cancer is being made in the younger populations more frequently, and this case is an example of it.

Screening can help detect bowel cancer at an early stage, when it is easier to treat. Screening can also be used to help check for and remove polyps, which can turn into cancer over time.

Residents of the United Kingdom (UK) are automatically invited for screening using a home, stool testing kit. This is offered every 2 years to everyone aged 60 to 74. The programme is currently expanding to also include people aged 50 to 59 years. This will be happening gradually over 4 years and started in April 2021.

Case presentation

The chief complaint in this case has been a history of having intermittent loose stools for around 9 months on the background of always having a 'sensitive stomach'. Sometimes there has been mucus present. At times, there has been a feeling of being constipated. There has also been cramping abdominal pain which is relieved by opening their bowels and an on and off feeling of bloating.

There has not been any weight loss, nor any blood in the stool and no meleana present throughout. No opening of bowels at night disturbing sleep. There has also not been any upper gastrointestinal symptoms throughout. No foreign travel prior. No patterns related to food.

The symptoms did seem to follow a pattern of getting worse when there was undue stress/anxiety.

There has been a past medical history of anxiety and more recently in the last few months of Irritable Bowel Syndrome (IBS).

There is no significant family history apart from a cousin who has been diagnosed with Crohn's Disease.

The patient was taking Sertraline for anxiety, and was also trialled on Mebeverine for a month for her IBS symptoms, with no success.

Investigations:
As described above, the bowels began to worsen 9 months ago, with intermittent loose stools increasing in frequency. The patient had come 5 months ago to her primary care team to investigate this. Over the months, the patient would undergo the investigations needed in stepwise fashion for a patient with no red flags - routine blood tests, stool cultures, a blood test for CA125, abdominal ultrasound, as well as a faecal calprotectin test. All of these results did not yield any concerning findings. The patient was at this point trialled on a dose of Mebeverine and guided on lifestyle factors. The patient had multiple appointments - a blend of telephone and physical face to face appointments.

A referral was made to the secondary care team, along with an 'advice and guidance' letter asking what the next steps would be for the patient who is not finding any relief from her symptoms. The response from the secondary care team was to do a faecal immunochemical test **(FIT)** to complete the investigations fully prior to proceeding with endoscopy or further scanning. The FIT test is an invaluable tool when trying to establish significant bowel pathology.

FIT test was positive; the patient was referred on **an urgent basis (seen within 2 weeks)** to secondary care and proceeded with a colonoscopy to establish diagnosis.

Diagnosis:
The patient was referred to the lower gastroenterology team on an urgent basis - what is called a 'two week wait' referral in the UK.

A colonoscopy arranged with biopsies was done, which confirmed colorectal carcinoma via the biopsy results.

Management:
The patient was then promptly discussed at a multidisciplinary team (MDT) meeting to discuss the further steps in management.

Discussion

This case underscores many topics relating to the complexity of making such a diagnosis in the context of the unique patient clinical scenario, as well as the dynamics, relationships and structures of primary and secondary care.

On the surface, this looks like a case in which a patient with **no red flags** was ultimately diagnosed with cancer. Despite this, there are several learning points to address.

Gastrointestinal
This patient had been suffering for the past 9 months. The diagnosis of (IBS) Irritable Bowel Syndrome (symptoms must be present for at least 6 months) is classed as:

'abdominal pain or discomfort that is either relieved by defaecation or associated with altered bowel frequency or stool form.'

+ 2 of:

- Bloating, distention, tension or hardness.
- Altered stool passage (straining, urgency, incomplete evacuation).
- Passage of mucus.
- Symptoms made worse by eating.

Extra features which make IBS more likely:

- Lethargy
- Nausea
- Backache
- Bladder symptoms

The case underscores the importance of scanning for **red flags:**

- Per rectum bleeding
- Family history of bowel or ovarian cancer
- Fever
- Rectal or abdominal mass
- Change in bowel habit
- Unintentional and unexplained weight loss
- Diarrhoea waking the patient from sleep
- Abnormal blood tests – anaemia, raised inflammatory markers or CA125 (Cancer Antigen 125)

Investigations to rule out **other causes**:

- FBC (suspicious if raised platelet count or anaemia), ESR and CRP (IBD),
- coeliac screen and consider CA 125 +/– pelvic USS if raised.
- If recent antibiotic use or long-term PPI use, consider a Clostridium difficile screen.

Depending on the clinical presentation, there is also consideration for other investigations - ultrasound, sigmoidoscopy, colonoscopy, barium enema, TSH, faecal ova/parasites, hydrogen breath tests.

Frequently omitted information that is also important in the journey of the patient is a lifestyle and social history. These include mood, stress, travel history, alcohol use, smoking status, and overall diet history.

A diagnostic tool of importance is **faecal calprotection**. This is a protein secreted from inflammatory cells in the gut.

When to test? - After ruling out red flags, to differentiate between IBS and Inflammatory Bowel Disease (IBD), specialist assessment should be considered.

Mental Health

It must be added that Mental health plays a role here too. There was already underlying stress and anxiety in the clinical presentation and past medical history of the patient.

Open questions help the real problem to surface, and addressing the patients' ideas, concerns, and expectations is vital during a consultation; be it over the phone or in person. Red flags can then steer diagnosis. Risk assessments will then guide management. In this case, there were no red flags for lower GI symptoms, but her history of anxiety and ongoing stress, certainly needed to be acknowledged and resolved.

NICE Guidance points out the stepped care model for the management of generalised anxiety:

Step 1: 'Identification and assessment; education about GAD and treatment options; active monitoring.'
Step 2: 'Low-intensity psychological interventions: individual non-facilitated self-help, individual guided self-help and psychoeducational groups.'(1)
Step 3: 'High-intensity psychological intervention (CBT/ applied relaxation) or a drug treatment.'(1)

SSRIs. Side effects: upset stomach and may increase anxiety initially.

Propranolol may be required in addition. Care of contraindications, e.g. asthma.

Alternative drug treatments: SNRI and pregabalin.

Benzodiazepines may be used for crisis management only.

Step 4: 'Highly specialised treatment, such as complex drug and/or psychological treatment regimens; input from multi-agency teams, crisis services, day hospitals or inpatient care.'

A simplified version of the CBT model adapted from Williams et al. (2, 3) which can be used in whole or in part within the 10-minute consultation after excluding red flags for the physical causes. This can help patients visualise why their physical symptoms are linked to their anxiety and not be a sign of something sinister - unfortunately this was ultimately not the case on this occasion. This is a unique way of demonstrating to the patient that they have been listened to.

Cancer
Refer via 2WW Colorectal cancer pathway:
Aged ≥40 years with unexplained weight loss and abdominal pain.
Aged ≥50 years with unexplained rectal bleeding.
Aged ≥60 years with either: Iron deficiency anaemia or a change in bowel habit.
Positive Faecal Occult Blood test

Consider cancer pathway referral:
Rectal or abdominal mass
Anal mass or ulceration
<50 years and rectal bleeding with any of the following unexplained symptoms or findings: Abdominal pain, A change in bowel habit, Weight loss, Iron deficiency anaemia
Offer FOB testing in people without rectal bleeding:
Aged ≥50 years and have abdominal pain or weight loss
Aged <60 years and have change in bowel habit or iron deficiency anaemia
Aged ≥60 years and have anaemia without iron deficiency

It is important to note that this patient unfortunately had an ever present scenario in primary care in the UK that often delays and hampers diagnosis: this included; first telephone consultations before a face to face consultation; long waiting times for appointments, investigations and results; no per rectum examination being done; and seeing multiple different physicians and therefore hampering her continuity of care.

Should this patient have been seen sooner and had a per rectum examination or had consistently seen the same physician would her diagnosis have come sooner?

Despite this patient being at the age of 42 with no red flags, the decision to offer a faecal occult blood stool test (FIT) was there and up to the clinical judgement of the physician. However, the unique blend of her age, her mental health and perhaps, not establishing a proper doctor-patient relationship, had all, perhaps, delayed that step.

Outcome and Follow-up:
The outcome of this was that in the space of a few months, the patient had a diagnosis and was booked for treatment.

The patient had a colonoscopy as per protocol to establish diagnosis and was subsequently discussed at a multidisciplinary team meeting, with the decision for surgery being made.

Waiting times unfortunately are not in the power of the individual physician on the day, but the pathways in place can be. The method of communication between primary and secondary care was robust and quick, leading to the advice to do a FIT and move forward with an urgent referral.

In terms of what the primary care setting has incorporated:

It has taken the steps to review guidelines and make the FIT more of a routine investigation in such cases. The FIT will likely be more routine and widespread in use in the younger populations, as is highlighted by the screening plans already.

Another aspect that the primary care setting has made a point to address, is to do per rectum examination when indicated, as a matter of importance, and to explain this importance to patients.

Background:
The number of under-50s diagnosed with cancer in the UK increased by 24 per cent between 1995 and 2019, according to figures released by Cancer Research UK (CRUK). The incidence of these “early onset” cases is increasing faster than any other age group, with almost 35,000 British 25 to 49-year-olds receiving a diagnosis in 2019. While cases among over-75s in G20 countries peaked in 2005 and are now in decline, rates for the youngest adults — 20 to 34-year-olds — are at their highest in 30 years.

Health seeking behaviour, mental health, physical symptoms, continuity of care, access to healthcare, and clinical pathways all contribute to the daily challenges in primary care. This case illustrates these issues quite well. Despite experiencing symptoms for months, the patient avoided seeking timely medical intervention due to fear of diagnosis and the potential implications on her socioeconomic status and future. This avoidance behaviour is not uncommon among patients, especially in younger patients and where mental health is being impacted as well. Then, when the clinical process began, the challenges mentioned were prominent, leading to a slower diagnosis of a pathology that was not expected to be made for such a patient.

Patient Perspective:
This is a patient who enjoyed work and had good concentration and focus. She had exercised to keep healthy, while not drinking much alcohol and not consuming any drugs.

Her husband has a good relationship with her but does acknowledge her significant anxiety. There is one child aged 15.

The patient did not seek initial primary care input as she has been put under a lot of pressure recently at work. She had targets to meet all the time, and this has been difficult. She has had some time off recently with anxiety but went back to work. She does not get sick pay. The sertraline does seem to help but she does worry about her older parents, along with fears about what her symptoms could be due to. When she presented to see the physician, she was under the impression that simply, her Mebeverine would be restarted along with some more dietary advice.

The parents live locally. Her father encouraged her to 'get checked out' as her cousin has Crohn's disease. This ultimately exacerbated her concerns.

She had tried to manage her symptoms but sought help when they eventually worsened. She even mentioned to a physician that she was ashamed to say that on one occasion she was caught short and had some faecal incontinence.

Ultimately there is always more to the clinical picture than just ruling out pathology. Having a holistic approach to patient care is of utmost importance, especially in the challenging healthcare environments where continuity of care can be difficult.

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