A pregnant woman presents with intermittent rectal bleeding. What could be the cause, what are the appropriate investigations and when should these investigations be carried out?

CASE SCENARIO
Angela, a 28-year-old woman who is 14 weeks pregnant, presents to her GP with a two-month history of intermittent rectal bleeding. Over this period, she has been passing bright blood on to her toilet paper, and at times into the toilet bowl. In addition, her stools are looser than in the past and she reports occasional urgency. There has been no abdominal pain or weight loss. Her general health is good and she is not taking any regular medications. There is no relevant family history.

Does Angela require investigation at this stage or can this be deferred until after her baby is born?

COMMENTARY
Possible causes
Rectal bleeding at any time requires consideration of the underlying cause (see Table for a list of possible causes). The passage of bright blood suggests a source in the rectum or sigmoid. Minor rectal bleeding as a result of small tears, fissures or haemorrhoids is not uncommon during pregnancy as constipation develops at some stage in up to 40% of pregnant women. In most cases, constipation responds to an increase in dietary fibre and fluid intake. Iron supplements may also contribute to constipation and may need to be ceased if the constipation is severe.

Anal fissures tend to be accompanied by marked pain (as opposed to haemorrhoids that are usually painless) and generally result from straining. When haemorrhoids are painful a degree of prolapse, thrombosis or strangulation may be present.

A number of factors are associated with the development of haemorrhoids during pregnancy. These include:
- mechanical compression of veins because of the enlarging uterus
- straining as a result of worsening constipation, and
- hormone-related vascular changes.

In Angela’s case, her stools have been softer and her urgency raises the question of rectal pathology.

Although infectious forms of gastroenteritis can cause bloody diarrhoea, this is unlikely in Angela’s case, particularly given the duration of her symptoms and the intermittent nature of her rectal bleeding. A rapid onset of symptoms, particularly in the presence of nausea, vomiting, abdominal pain and fever does, however, raise the possibility of an infectious cause. In such instances, stool microscopy and culture should be requested. It is important to remember that parasitic infections such as giardia do not cause rectal bleeding.

Inflammatory bowel disease (eg. ulcerative proctitis) can occur for the first time during pregnancy, especially in the first trimester and Angela’s symptoms are in keeping with this. Apart from urgency, mucus may be passed, as well as blood and the stool volume is generally small in such cases. Specific questioning about extra intestinal manifestations is sometimes of help — for example, peripheral arthritis, low back pain, red eyes (episcleritis, uveitis), erythema nodosum and aphthous ulcers. There may also be a family history of inflammatory bowel disease.
Given Angela’s age, a rectal or distal colonic malignancy or polyp, diverticular disease or ischaemic colitis are much less likely. In addition, ischaemic colitis generally occurs in the context of significant vascular disease or atrial fibrillation. However, these conditions need to be considered in the differential diagnoses, although rectal bleeding from more proximal malignant lesions tends to be dark in colour and diverticular bleeding usually is profuse.

**Investigations**

Gentle digital examination of the rectum with careful inspection of the perianal area should be performed at the time of consultation. Initial investigations should include a full blood count, but anaemia is not unusual in pregnancy. There is absolutely no point in faecal occult blood testing as this is only of potential benefit in asymptomatic individuals.

The next investigation should be direct visualisation by flexible sigmoidoscopy after an enema to evacuate the rectum and sigmoid. In the first trimester, it is best to avoid sedation with midazolam and propofol. Flexible sigmoidoscopy without sedation is generally well tolerated and allows the mucosa to be inspected and biopsies to be taken.\(^3\)

If these tests fail to provide the answer as to the cause of Angela’s rectal bleeding, she should be monitored. If her bleeding persists, full colonoscopy will need to be considered, although if possible this should be deferred until after her baby is born. However, if necessary before then, it can be safely performed, especially in the later stages of pregnancy.

**CASE OUTCOME**

In Angela’s case, flexible sigmoidoscopy was performed and sadly revealed a rectal cancer (see Figure). Although rectal bleeding is not uncommon in pregnancy, this case highlights the need to investigate appropriately. However, in the vast majority of cases the cause will be benign.

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**CAUSES OF RECTAL BLEEDING IN PREGNANCY**

**Common**
- Haemorrhoids
- Rears and fissures

**Uncommon**
- Infectious colitis
- Inflammatory bowel disease
- Diverticular disease
- Colorectal malignancy/polyps
- Ischaemic colitis

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**References**


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