Diverticular disease

Diverticular disease is very common affecting about half of all 60 year old and nearly all 80 year olds. However only a small percentage of people with diverticular disease will have symptoms.

What is diverticular disease ?

As the colon ages it weakens this can lead to a bulge or pocket forming on the wall of the bowel rather like a bulge in an old tyre. Diverticula can occur throughout the gastrointestinal tract, but are seen most commonly in the sigmoid and descending colon (left side of the colon). A diverticulum consists of a herniation of mucosa through the thickened colonic muscle. Diverticula vary from solitary findings to many hundreds. They are typically 5-10 mm in diameter but can exceed 2 cm.

What are the risk factors for diverticular disease ?

Diverticular disease is rare in people younger than 40 years and is rare in rural Africa and Asia. The highest prevalence seen in Western societies where it is believed that refined diets low in fibre cause chronically raised pressure in the colon.

What are the symptoms of diverticular disease ?

Approximately three quarters of patients with diverticular disease remain asymptomatic. The condition if often diagnosed while the patient is being investigated for other conditions eg. screening for colon cancer.

Patients can present with non-specific abdominal complaints, e.g. disturbed bowel function, bloating or lower abdominal pain, usually left-sided. Pain is generally exacerbated by eating and diminished with defecation or flatus.

What symptoms might I experience with Diverticulitis ?

If the diverticulum becomes inflamed (diverticulitis) then the patient may develop symptoms of varying severity depending upon how inflamed the diverticulum becomes.

Generally patients present with left lower quadrant pain. Asian patients have predominantly right-sided diverticula and will usually present with right lower quadrant pain. Pain may be intermittent or constant and may be associated with a change in bowel habits. Fever is present in most patients. The patient may go off their food and have nausea and vomiting.

One third of patients who develop diverticulitis will develop further complications. The inflamed diverticulum may form an abscess. This gives more severe pain and more severe symptoms of infection (swinging temperature, rigors, racing pulse). Sometimes the diverticulum erodes into a nearby structure creating a fistula. If this is the bladder then the patient may pass flatus and faecal material in their urine. Occasionally the diverticulum can perforated into the abdominal cavity causing peritonitis. This is a surgical emergency.

Can diverticular disease cause rectal bleeding ?

Yes. Haemorrhage can arise in 3-5% of patients with diverticulosis. Presentation is usually abrupt painless onset. The patient may have mild lower abdominal cramps or the urge to defecate, followed by passage of a large amount of red or maroon blood or clots. Although a hospital admission may be required bleeding almost always stops without surgical intervention.

What other causes could their be for my symptoms ?

The differential diagnosis of diverticulitis includes acute appendicitis, inflammatory bowel disease, colon cancer and ischaemic colitis. Gynaecological disorders, such as ruptured ovarian cysts, ovarian torsion, ectopic pregnancy, or pelvic inflammatory disease can mimic diverticular disease.

How might I be investigated ?

You can expect to examined internally at your first consultation this will include at least a digital rectal examination and may include inspection of the rectum with a short telescope. Blood test may be taken but initial blood haematology should be normal in patients with uncomplicated diverticular disease. The white cell count is often raised in patients with diverticulitis or abscess. Bleeding may cause anaemia.

Further evaluation of the colon is usually made with a barium enema or a CT pneumocolon. Both these tests are types of x-ray investigations that are able to outline the colon. If the diagnosis is not clear then a colonoscopy may be considered as this is the best test to rule out a colon cancer.

If you present acutely unwell then you are more likely to have a CT scan as this allows the abdomen to be assessed for the presence of an abscess.

What treatments are there for Diverticular disease ?

No treatment or follow-up needs to be offered to patients who are asymptomatic. The patient should try to keep their bowel habit soft and regular. This may be aided by a high-fibre diet or possibly laxatives if constipation is a real problem.

Antispasmodic drugs may improve symptoms by diminishing muscular contraction.

If the patients starts to develop signs of diverticulitis then oral antibiotics may settle symptoms if caught early enough. More severe diverticulitis usually requires hospital admission and the administration of intravenous antibiotics. If a local abscess develops it can often be drained with a small tube (CT-guided percutaneous drainage). However, in a number of cases surgery will be necessary.

When is surgery considered ?

Most patients admitted with acute diverticulitis will respond to conservative treatment, but 15-30% will need surgery.

Diverticular perforation with generalised peritonitis, although uncommon, carries a high mortality rate (up to 35%) and needs urgent surgical intervention.

Risk of recurrent attacks of acute diverticulitis is about one in three. Recurrent attacks are less likely to respond to medical treatment and have a high mortality rate. Patients who suffer recurrent bouts of diverticulitis may be offered surgery.

For most patients, diverticular bleeding is self-limited. However, a very few patients have very heavy bleeding and require control. This is often achieved

by blocking up the blood vessel with little metal coils performed under x-ray imaging (angiographic embolisation). If this fails then the patient needs urgent surgery.

What operations are performed ?

The operation aims to removed the damaged section of bowel which is most often the sigmoid colon (left colon). If the patient is well enough then the two ends of the colon left behind can be joined up. This operation is called a sigmoid colectomy and is the most commonly performed operation for diverticular disease in patients having a planned operation. For some patients who present as emergencies it is not safe to join the bowel up straight away. The damaged bowel is removed and the patient is given a colostomy (Hartman's operation). At a later date when they are sufficiently well a second operation can be performed to rejoin the bowel.