

## What is the Cause of Diverticular Disease?

It is accepted as a "Western Society Disease" thought to be related to an over-refined diet lacking in fibre. The consistency of the stool is such that high pressure develops in the left colon which, over a period of time, forces the lining of the bowel through the muscle wall at points of weakness alongside small blood vessels. This forms the diverticula.

## Incidence

First described in 1849, its recognition increased with the development of the barium enema in the early 1900s. The disease is rare before 30 years of age. Thirty percent of the population over the age of 60 and 50% of those aged between 80 and 90 years have diverticulosis. Females are often more affected than males.

## Pathology

The increased pressure in the bowel may be associated with spasm. Many of the diverticula contain a firm spherical pellet of faeces (faecalith) which is retained indefinitely in the "pocket". This faecalith is probably the cause

of inflammation which can lead to an abscess in the wall of the colon. This in turn may cause acute abdominal infection (peritonitis) or later compression of the colon (stricture), or tunnel into another organ (fistula) such as bladder, bowel or vagina.

## Symptoms

The great majority of patients with diverticular disease have no symptoms.

Patients may experience symptoms including pain or constipation. These symptoms may occur due to spasm of the bowel or chronic incomplete obstruction. This is called symptomatic diverticular disease. Diverticulitis is due to inflammation (with or without an abscess). It can vary in severity, from a few days of being unwell with constant pain in the left lower abdomen and fever, to an emergency abdominal crisis requiring urgent operation. The disease may be insidiously progressive forming a chronic pelvic abscess, a stricture of the colon or a fistula, discharging infection and gas into the bladder or vagina.

Chronic bleeding is uncommon in diverticular disease but occasionally a haemorrhage from the colon may require the patient to be admitted to hospital. Fortunately in most patients the bleeding stops without surgical intervention.

## Diagnosis

Diverticular disease can be readily diagnosed by barium enema or endoscopy (flexible sigmoidoscopy or colonoscopy). Difficulty arises in deciding whether uncomplicated diverticular disease is the cause of symptoms. Similar symptoms can be caused by bowel spasm without diverticula. Complications can usually be detected by clinical examination and the above tests. Diverticular disease does not lead to cancer. Both diseases however commonly occur in the left colon. In some patients the distortion of the colon and clinical features can mimic colon cancer and diagnosis can only be made after removing the abnormal bowel.

## Treatment

For patients with asymptomatic or mild disease a high fibre diet, with or without a stool softener laxative, is usually sufficient. When an attack of inflammation occurs, a short course of antibiotics and a bland diet will usually resolve the symptoms in a few days. A severe

attack will need treatment in hospital. If emergency operation is necessary it will usually require removal of the affected part of the colon and a temporary colostomy may be necessary. Patients treated electively (non urgent) by operation usually have the diseased area removed without a temporary colostomy. It is very rare for a patient to need a permanent colostomy. Bowel function and general health return to normal after operation and recurrence of symptomatic diverticular disease is rare.

Only a small number of patients need surgical treatment compared with the number of patients who have diverticulosis of the colon.

## Definition

Diverticulosis consists of small protrusions of the inner lining (mucosa) of the colon usually in the sigmoid, but can affect the whole colon. They appear as spherical "pockets" or "blowouts" on the surface of the bowel varying from 3-10mm in size.

## Colorectal Surgical Society of Australia and New Zealand (CSSANZ)

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