

Diverticular Disease (Diverticula, Diverticulosis and Diverticulitis)



“Diverticula” are small out-pouching areas of the large bowel that are most commonly found in the sigmoid colon on the left side. They are thin walled and contain easily damaged blood vessels. “Diverticulosis” is the presence of multiple diverticula in the bowel. “Diverticular Disease” is diagnosed when the presence of diverticula become problematic either with inflammation (“Diverticulitis”) or without.

Diverticular Disease was initially recognised around the end of the 19th century and its increasing prevalence around the world is thought to be related the growth of industrialised societies. From this presumed correlation the association with highly refined diets that are low in fibre and high in animal fat has become an accepted hypothesis for the development of diverticulosis as a result of increased pressures within the bowel. This theory alone is unlikely to be the whole story. The risk of developing diverticulosis increases with age from around 5% aged 40 years to up to 80% by the age of 80 years. Only a proportion, perhaps 10-20% of people with diverticulosis develop any symptoms related to the condition at all and only half of them will develop diverticulitis. Of these less than a quarter will require hospital admission and fewer still will need surgical intervention for complications. However the incidence of complications associated with diverticulitis is increasing particularly in younger adults.

The difficulty for a general surgeon is in trying to predict which of their patients, with a very common condition, require any treatment at all, let alone which ones need major bowel surgery and removal of part of the colon. The number or position of diverticula is of no useful assistance in decision making and severe

attacks in the past do not necessarily predict problems for the future. Unfortunately as a result most surgery for complications of diverticular disease is carried out as an emergency, not infrequently with a patient having no symptoms at all in the months or years before admission. Such emergency surgery often results in the formation of a colostomy.

Diverticulosis is diagnosed by a “Swiss cheese” appearance at endoscopy (usually at colonoscopy), on Barium Enema, CT scan or at operation as small pouches on the outside of the bowel and histologically as localised thinning of the bowel wall (when examined under the microscope).

Symptoms

Diverticular Disease (Diverticulosis)

Abdominal Pain- usually cramp-like or dull in nature on the left side
Change in bowel habit- diarrhoea, pellety stools, constipation
Rectal bleeding- bright or dark red
Some, none or all of the above may be present.

Diverticular Disease (Diverticulitis)

Abdominal Pain-usually sharp, left sided and worse with movement
Change in bowel habit- diarrhoea or constipation
Fever, sweats and shakes
Peritonitis and shock
Fistula (to bladder or vagina)

Treatment of Diverticular Disease

Diverticulosis cannot be corrected by treatments other than surgical removal but the symptoms associated with the presence of diverticula and the progression of the disease may be improved with the adoption of a high fibre diet. Bulking of the stool increases the diameter of the bowel, decreases transit time and reduces pressures within the bowel particularly on the left (narrower) side of the colon. Pain, bowel habit and bleeding symptoms may all be improved with this simple intervention although by no means does it suit everyone.

Treatment of Diverticulitis

Most patients will respond with a combination of bowel rest (with a low residue or clear liquid diet) and antibiotics either as an in, or an outpatient according to the severity of the attack. This may take some days to resolve. If symptoms settle then patients should be referred to a specialist surgeon who will arrange imaging of the whole bowel and will make recommendations for further treatment by dietary measures or consideration of planned surgery. A failure to improve with treatment or deterioration mandates admission to hospital and expert opinion. In hospital treatment will continue with intravenous antibiotics and require accurate imaging of the bowel by means of CT scanning perhaps with drainage (through the skin) of any abscesses that may have formed.

Where necessary surgery is undertaken to drain abscesses, treat fistulas and remove segments of the affected bowel. These may be achieved both by laparoscopy and by open surgery.

Operations Performed

The operation performed will depend on the site of disease, its severity and the other structures involved but those below are the most commonly performed

Hartmann's Procedure: The sigmoid colon is removed. The rectum closed off from above and the bowel upstream brought out onto the abdominal wall as a colostomy.

Sigmoid colectomy: The sigmoid colon is removed and the bowel rejoined.

High Anterior Resection (with or without ileostomy): The sigmoid colon and part of the rectum are removed and the bowel ends rejoined.

Where bowel continuity is restored bowel function, although rarely the same as before surgery takes place, is well maintained for the majority of patients and usually improves with time.



Follow-up

Once wounds are healed and normal diet is resumed bowel function generally settles to near normal within six months or so. Occasionally constipating drugs or laxatives may be needed to regulate satisfactory bowel function. Patients are usually discharged from follow-up after a six week appointment following discharge.