

Managing patients with diverticulosis

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While asymptomatic diverticular disease requires no specific treatment, acute diverticulitis should be managed with bowel rest and antibiotics, plus further investigation if symptoms do not resolve within 48 hours. Emergency surgery is sometimes necessary.

Illustration not available

Figure. Diverticular disease.

Remember

- Diverticulosis is a common condition in the Western world, affecting most people over 50 years of age. The vast majority of patients will have no significant clinical sequelae and the diagnosis may only be made incidentally during investigations for other colonic pathology.
- The aetiology is presumed to relate to a refined diet with inadequate fibre intake leading to segmental colonic spasm, with high intraluminal pressure between constricted segments allowing mucosal herniation through the muscular wall of the bowel (Figure). The herniation usually occurs along the line of feeding vessels, which represent the site of maximal weakness, and there is usually associated muscle wall hypertrophy due to the heightened muscular activity.
- Diverticulosis can occur anywhere in the large bowel but most commonly affects the sigmoid colon. Most complications occur in the sigmoid colon, even in patients who have widespread colonic involvement.

- The most common symptom is left iliac fossa pain, often associated with a fever and constipation due to local inflammation. More severe episodes may involve acute abdominal pain and septicaemia associated with local perforation and abscess formation or generalised peritonitis.
- Occasionally an abscess may discharge into a local structure or through the skin, resulting in fistula formation. This most commonly occurs into the bladder as a vesicocolic fistula, and presents as recurrent urinary tract infections (UTIs). In this setting, a fistula may not be suspected unless the classic symptom of pneumaturia develops. There will usually be a history of abdominal pain, which resolves with development of the fistula. This diagnosis should be considered in all patients with unusual or recurrent UTIs.
- Bleeding is also a complication of diverticular disease and presents as spontaneous acute heavy bleeding due to erosion of a vessel at the base of a diverticulum. Spontaneous resolution almost always occurs, although hospitalisation and transfusion may be required. Recurrence is rare, and diverticular disease is never the cause of recurrent small volume rectal bleeding, which should always be investigated in its own right.

- Colonic obstruction is very rare in diverticular disease and generally occurs in a subacute and chronic fashion rather than acutely. A stenotic area in the sigmoid at colonoscopy or barium enema must never be assumed to be due to diverticular disease and generally requires surgical management because of the risk of underlying malignancy.

Assessment

- Clinical assessment is the most important determinant of the severity of a case of diverticulitis. Mild episodes of left iliac fossa pain and fever can be managed on an outpatient basis. More severe episodes require hospitalisation, and severe sepsis or generalised peritonitis require urgent surgical attention.
- CT scanning, preferably with oral and intravenous contrast, is the investigation of choice in acute episodes and will give an indication of the severity of local inflammation or abscess formation. Percutaneous drainage of local abscess cavities can also be performed under CT guidance.
- CT scanning is also the investigation of choice for vesicocolic fistulae, and will usually show the classic finding of gas in the bladder.
- Colonoscopy shows diverticulae and mucosal inflammation and, equally importantly, excludes other pathology. It

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continued

should not be performed during an acute episode but should be performed in all patients once symptoms have resolved.

- Barium enema is contraindicated during acute attacks and is inferior to colonoscopy for general evaluation of colonic pathology. It may be useful in patients with strictures or tightly angulated sigmoid colons that cannot be traversed colonoscopically.
- CT colonography is still undergoing evaluation and may replace barium enema in the assessment of patients with failed colonoscopy. Its role in general colonic investigation is still evolving.

Management

- Asymptomatic diverticular disease requires no specific treatment. A high fibre diet and avoidance of seeds and nuts has been suggested intuitively to reduce colonic spasm and the risk of diverticular obstruction; however, there is no scientific evidence to support this practice.
- Acute diverticulitis diagnosed on clinical grounds with or without CT scanning is managed with bowel rest and antibiotics (orally or intravenously, depending on the severity of the attack). Indications for immediate hospitalisation include significant pain, significant local or generalised abdominal tenderness, fever and tachycardia. Failure of resolution of symptoms after 48 hours of oral antibiotics should lead to further investigation with CT scanning and consideration of hospitalisation.
- Colonoscopy should be performed four to six weeks after resolution of an acute attack to exclude other pathology.
- Pericolonic abscess formation may occur in more severe cases, usually associated with significant local tenderness and fever. Following CT diagnosis, percutaneous drainage under CT guidance may allow nonoperative management with antibiotics. If this strategy is successful then surgical intervention can be delayed and a single stage procedure performed electively following resolution

of the episode.

- Emergency surgery is indicated for generalised peritonitis usually related to free perforation of a diverticulum itself with faecal peritonitis or to rupture of a pericolonic abscess with purulent peritonitis. Pericolonic collections unable to be drained percutaneously or not resolving with conservative management will also require emergency surgery. In this setting, primary anastomosis is not usually possible due to local sepsis; a Hartmann's type resection will be required, with end colostomy and oversewing of the rectal stump. Subsequent reversal of the stoma can be undertaken in three to six months, when full recovery has occurred.
- Elective surgery is indicated for all patients with fistulae to the bladder, vagina or skin, and can often be performed in a laparoscopic assisted fashion with significant advantages in postoperative morbidity and recovery. A preoperative colonoscopy should be undertaken in all cases to ensure there is not a malignant process. The fistula is then simply disconnected from the associated structure.
- Elective surgery should also be considered in all patients following recovery from an episode of complicated diverticulitis such as pericolonic abscess formation. Again, a single stage laparoscopic procedure can be performed and avoids the 50% risk of needing emergency surgery following further complicated attacks in these patients.
- Surgery for uncomplicated diverticulitis is more controversial but should require at least two episodes needing hospitalisation and will depend on the severity of episodes and the general health of the patient. In general terms, younger patients (under 50 years of age) are usually considered for surgery earlier because of the greater lifetime risk of complications and the lower risk of surgical intervention. MT

DECLARATION OF INTEREST: None.