

→ Colonic diverticular disease (referred to as diverticular disease) — characterized by sac-like protrusions (diverticula) on the wall of the large intestine — can be asymptomatic (known as diverticulosis) or symptomatic (such as diverticulitis or diverticular haemorrhage).

MECHANISMS

Bacterial stasis eventually leads to micro-perforation, inflammation and infection; in severe cases, abscesses or fistulas can form

A combination of increased colonic pressure, abnormal colonic motility and weakness of the colon wall is attributed to the development of a diverticulum

In some patients, rupture of diverticula-associated arteries leads to colonic bleeding

Diverticular disease is characterized by chronic, low-grade inflammation mediated by neuropeptides, which might trigger visceral hypersensitivity in some patients

Faecal stasis can lead to the formation of a faecolith (hard mass of faeces), which can obstruct the diverticulum causing bacterial stasis and trauma

EPIDEMIOLOGY

The prevalence of diverticulosis is increasing globally. In western countries, nearly two-thirds of adults are estimated to develop diverticulosis in their lifetime and ~25% of these individuals develop diverticular disease. The prevalence of diverticulosis is very low in individuals of <40 years of age and increases with age. Approximately 2–3% of individuals with diverticulosis develop diverticulitis and <5% of individuals with diverticulosis experience diverticular haemorrhage. Risk factors include age, genetic predisposition, lifestyle, diet and medication such as aspirins, NSAIDs and corticosteroids.

DIAGNOSIS

Imaging evaluations such as CT, ultrasonography and MRI are mandatory for an accurate diagnosis of diverticular disease. Once diagnosed, C-reactive protein is the most useful biomarker to determine disease severity. Traditionally, colonoscopy was avoided in patients with acute diverticulitis owing to risks of perforation from the procedure, although the procedure is recommended before surgery or after an episode of acute diverticulitis to rule out or screen for colorectal cancer.

QUALITY OF LIFE

Patients often report recurrent abdominal pain, changes in bowel habits and bloating. The diverticulitis quality of life (DV-QOL) tool, a disease-targeted questionnaire, can be used to monitor the physical, psychological and social well-being of patients.

OUTLOOK

Knowledge of defined prognostic factors and accurate classification of the disease are being sought for the optimal management. Insights from studies of the faecal and urinary metabolome might potentially improve diagnostic accuracy.

Rx MANAGEMENT

Management of diverticular disease depends on the severity of the disease. Pharmacological therapy is not necessary for individuals with diverticulosis as most will not progress to symptomatic disease. For patients with symptoms, such as mild to moderate pain and bloating, a high-fibre diet is usually recommended. Poorly absorbed antibiotics (such as rifaximin) are prescribed to treat dysbiosis and to reduce gas-related symptoms. Some studies report that anti-inflammatory drugs such as mesalazine can also relieve symptoms. For patients with ‘uncomplicated’ diverticulitis (that is, without abscess, fistula or perforation), outpatient management with antimicrobial therapy is used. However, owing to the evolving concepts in the pathogenesis (that the disease is an inflammatory process rather than an infection), the use of antibiotics in the treatment is disputed. For patients who present with large abscesses, percutaneous drainage is performed when antibiotic therapy alone is insufficient. However, 10–20% of patients (with sepsis or peritonitis) will eventually require surgery to relieve symptoms.

