

# Abdominal Complaints: Diverticular Disease

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**Case Presentation:** A patient with a history of follicular large cell lymphoma schedules an urgent office visit for vague complaints of intermittent abdominal pain for the past month. The pain is present in the lower quadrants and is associated with cramping and alternating periods of constipation and diarrhea. The patient denies nausea, vomiting, or fevers. A review of systems is negative for any other complaints, and the patient's weight is stable. The patient is concerned that the pain represents a recurrence of lymphoma, which originally was diagnosed eight years prior. The patient was treated for relapse more than two years ago with no evidence of disease recurrence. A computed tomography (CT) scan completed five months prior was negative for lymphadenopathy. A previously enlarged right inguinal node had resolved completely. However, mild diverticulosis was observed in the sigmoid colon. The following information represents a general review of diverticular disease.

## Definition

A diverticulum is a single, saclike pouch or protrusion of a mucous membrane through the colon wall. Although the presence of one diverticulum is possible, generally numerous pouches are present. Diverticulosis is the term used for multiple diverticula (Crawford, 1999; Meyer, 2003).

## Incidence

Diverticulosis is more common in developed areas such as the United States, Europe, and Australia (Kang, Melville, & Maxwell, 2004; Salzman & Lillie, 2005; Stollman & Raskin, 1999). In 1998, diverticular disease ranked fifth in gastrointestinal disease total costs with an incidence of 2.2 million cases in the United States (Kang et al.). Given that a majority of patients with diverticulosis are asymptomatic, the true number of cases has been difficult to identify (Salzman & Lillie). The incidence of diverticular disease increases with age. More than 50% of

people older than 80 have the presence of diverticula; however, diverticula are rare in those younger than 40 (Kang et al.). When comparing the incidence in men to that of women, the prevalence was higher in men in studies completed before the 1930s. From the 1930s–1960s, the incidence was higher in women. At the present time, no gender difference exists (Stollman & Raskin). The sigmoid colon is the most common site of disease in Western civilization and often is called left-sided disease. In Asian countries and in those younger than 40, right-sided disease is more prevalent (Kang et al.; Salzman & Lillie).

## Pathophysiology

Diverticula occur when an area of weakness exists in the colon wall and

is accompanied by increased pressure in the lumen (Crawford, 1999). Factors that influence lumen pressure include dietary fiber intake, increased peristaltic contractions, and colon structure (Salzman & Lillie, 2005). A diet low in fiber causes the colon musculature to increase peristalsis, which, in turn, increases lumen pressure. Increased lumen pressure results in herniation at weakened areas along the colon wall. Diverticula vary in size and generally occur in multiple numbers. The average diameter is 5–10 mm, but they may surpass 20 mm in size.

## Signs and Symptoms

Diverticular syndrome ranges from asymptomatic diverticulosis to complicated diverticulitis (Salzman & Lillie, 2005).

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