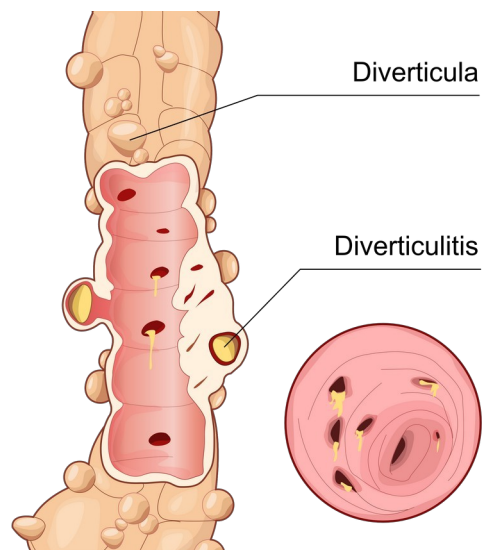


BIOS256 - Week 2 Case Study: Diverticulitis

The colon is a long, muscular tube that plays a key role in the digestive system. Its primary functions include absorbing water and electrolytes, compacting undigested food material into feces, and serving as the site for bacterial decomposition of remaining nutrients. The colon is divided into several sections: the cecum, ascending colon, transverse colon, descending colon, sigmoid colon, and finally the rectum. Along the length of the colon are small, pouch-like structures called haustra, which help in the compaction and movement of feces.

As individuals age, particularly after 40, small, bulging pockets can develop in the inner lining of the colon. These pouches are known as diverticula. Typically, diverticula are harmless and cause no symptoms. However, if these pouches become inflamed or infected, the condition is known as diverticulitis. Diverticulitis can cause symptoms like abdominal pain, fever, and digestive issues, and it may lead to more serious complications if untreated.

For uncomplicated diverticulitis, the recommended treatment usually involves a liquid diet to allow the colon to heal and antibiotics to address the infection. In cases where the condition is more severe and leads to complications like abdominal abscesses or perforation, more aggressive treatments such as surgical intervention may be necessary. Bowel resection is a procedure where the damaged part of the colon is removed, and the healthy segments are reconnected. In extreme cases, a colostomy may be required, where an opening (or stoma) is created in the abdominal wall to allow waste to be expelled into a bag.



Background:

Antoni Adamski, a 60-year-old retired pilot, presents to the clinic with a fever, abdominal pain, decreased appetite, and nausea that have been ongoing for the past 24 hours. He reports no changes in his diet, nor has he been traveling or eating out recently. Five years ago, Antoni underwent a screening colonoscopy that revealed the presence of diverticula in his colon, but no issues were reported at that time.

Upon physical examination, Antoni appears fatigued and in pain, with abdominal tenderness present on palpation. The pain is significant and localized to the lower abdomen.

Desired Outcomes:

1. Determine potential causes for Antoni's abdominal pain.
2. Educate Antoni on the significance of diverticulitis and the potential complications if left untreated.
3. Identify appropriate treatment recommendations based on the blood test and abdominal scan results.