A 73-year-old woman has episodes of abdominal pain and increasingly severe constipation. Test of the stool for occult blood is positive. The photomicrograph shows features of the resected colon. Which of the following is the most likely diagnosis?

(A) Adenocarcinoma  
(B) Diverticular disease  
(C) Polypoid adenoma  
(D) Villous adenoma  
(E) Volvulus
### Learning Objectives

The listener should be able to:

1. Identify the clinical manifestation of diverticular disease
2. Identify the histological appearance of diverticular disease
3. Discuss each answer choice’s (adenocarcinoma, diverticular disease, polypoid adenoma, villous adenoma, and volvulus) clinical manifestations and histological appearance.

### Key Teaching Points

- **Adenocarcinoma** is a possibility based on the patient’s age and positive occult blood test in the stool. However, on biopsy early adenocarcinoma may resemble the originating polypoid or sessile adenoma. Usually it presents as a firm, white, flat, well demarcated lesion with raised rolled edges and a central ulceration. Invasive adenocarcinoma also exhibits malignant glands that infiltrate the muscle wall. This is not shown.

- Diverticular disease has two components: diverticulosis and diverticulitis. Diverticulosis results from outpouchings of the colon called diverticula. The signs and symptoms are bleeding, cramping, bloating, constipation, and fistulas. Fecolith may enter one of the pouches and cause inflammation causing diverticulitis. Signs and symptoms of diverticulitis are pain in lower abdomen, fever, and vomiting. The patient’s clinical complaints of abdominal pain and constipation are consistent with diverticular disease. Occult blood in the stool is typical of diverticulosis, and the section displays what looks like a diverticular pouch containing a foreign body, thus making choice B the most likely diagnosis and the answer to the question.

- Polypoid adenomas start as small sessile lesions, and traction causes it to become pedunculated. The stalk is comprised of fibromuscular tissue and blood vessels and covered by normal mucosa. They are composed of tall, hyperchromatic, disordered epithelium, which is not seen in this picture – the epithelium in the picture is not continuous and does not appear to be dysplastic. Although the clinical presentation may indicate polypoid adenoma, the histology precludes this answer.

- Villous adenomas are rare, making its diagnosis unlikely. Histologically they appear as large sessile structures resembling a cauliflower that project from the surrounding normal appearing mucosa. The epithelium covering this type of structure often appears highly dysplastic and disorderly and in fact, invasive carcinoma is found in about 40% of these lesions. This is not shown.

- Volvulus refers to the twisting of a structure around its base of attachment. Clinically, patients have vague symptoms of abdominal pain, distention, and constipation, and later stages include infarction with necrosis. The symptoms of the patient do not rule out volvulus at its early stages. The section of colon does point to diverticular disease, however.

### USMLE Test source


### References


