

The Diseases of Duodenum, Jejunum, and Ileum

The duodenum, jejunum, and ileum are essential parts of the small intestine, playing a crucial role in the digestion and absorption of nutrients. Unfortunately, like any other organ in the human body, these sections of the small intestine are susceptible to diseases.

Understanding these diseases and their symptoms is important for timely diagnosis and treatment.

Duodenal Ulcers: Duodenal ulcers, also known as peptic ulcers, are painful sores that develop in the lining of the duodenum. They usually occur as a result of excessive stomach acid production or damage caused by the bacterium *Helicobacter pylori*. Symptoms of duodenal ulcers may include abdominal pain, bloating, heartburn, nausea, and vomiting. Treatment options often involve medications to reduce acid production, antibiotics to combat *H. pylori*, and lifestyle changes.

Jejunitis: Jejunitis refers to inflammation of the jejunum, which can be caused by various factors such as infections, medications, or certain autoimmune conditions. Symptoms of jejunitis include cramping abdominal pain, diarrhea, bloating, and loss of appetite. Treatment may involve identifying and addressing the underlying cause, along with supportive care such as fluid replacement and a modified diet.

Crohn's Disease: Crohn's disease is a chronic inflammatory bowel disease that can affect any part of the digestive tract, including the ileum. The inflammation caused by Crohn's disease can lead to various symptoms such as diarrhea, abdominal pain, fatigue, weight loss, and malnutrition. Treatment options for Crohn's disease often aim to reduce inflammation and manage symptoms through medications, dietary changes, and sometimes surgery.

Intestinal Obstruction: Intestinal obstruction refers to a blockage that prevents the normal flow of food and fluid through the intestine. It can occur in any part of the small intestine, including the duodenum,

jejunum, or ileum. Common causes include adhesions, hernias, tumors, or inflammatory conditions. Symptoms of intestinal obstruction include severe abdominal pain, bloating, constipation, vomiting, and inability to pass gas. Immediate medical attention is necessary to diagnose and treat this condition, which may involve medications, bowel rest, or surgery.

Celiac Disease: Celiac disease is an autoimmune disorder characterized by an intolerance to gluten, a protein found in wheat, barley, and rye. The consumption of gluten triggers an inflammatory response in the small intestine, specifically damaging the lining of the duodenum and jejunum. Symptoms of celiac disease may include diarrhea, abdominal pain, bloating, fatigue, weight loss, and malnutrition. The primary treatment for celiac disease is adhering to a strict gluten-free diet.

The Common Diseases of the Colon

The colon, also known as the large intestine, plays a vital role in the digestive process by absorbing water and electrolytes from food waste, forming stools, and eliminating them from the body. Unfortunately, like any other organ, the colon is susceptible to various diseases that can impact its function and overall health. Understanding these diseases and their symptoms is crucial for early detection and prompt treatment. In this article, we will explore some common diseases that affect the colon.

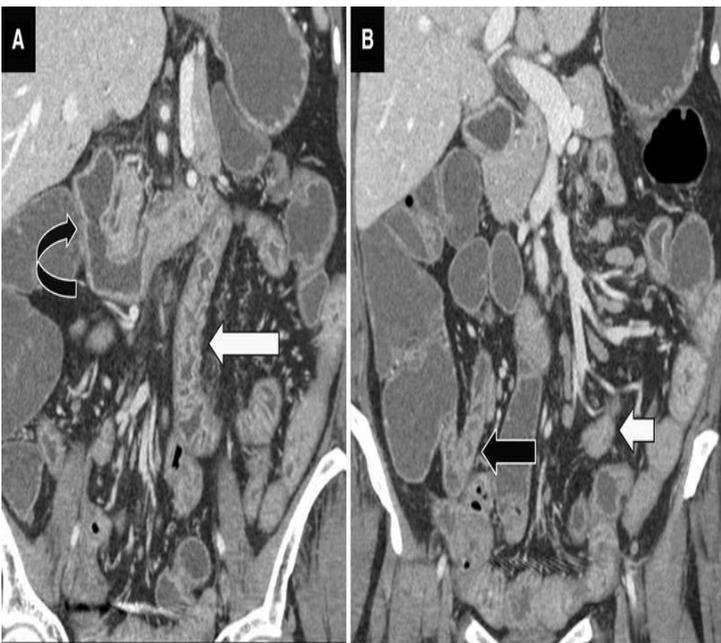
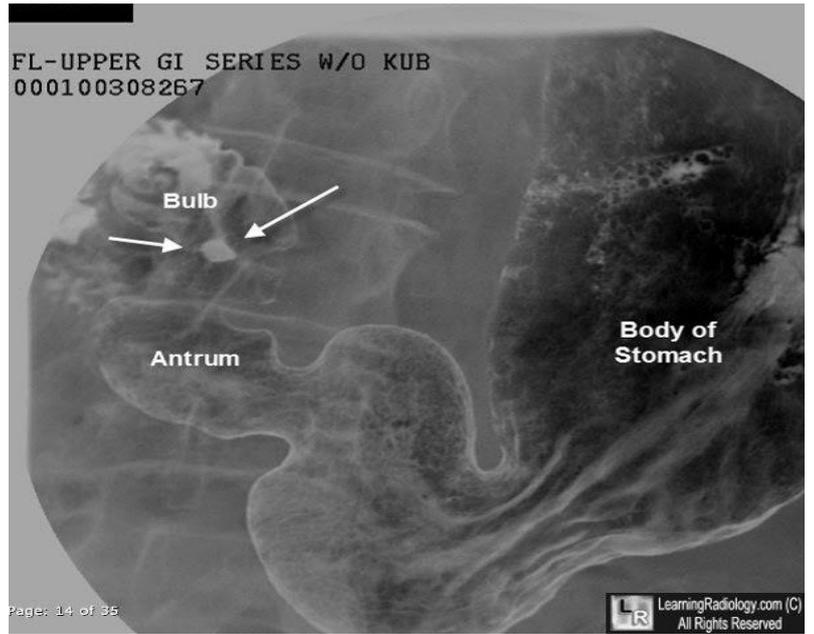
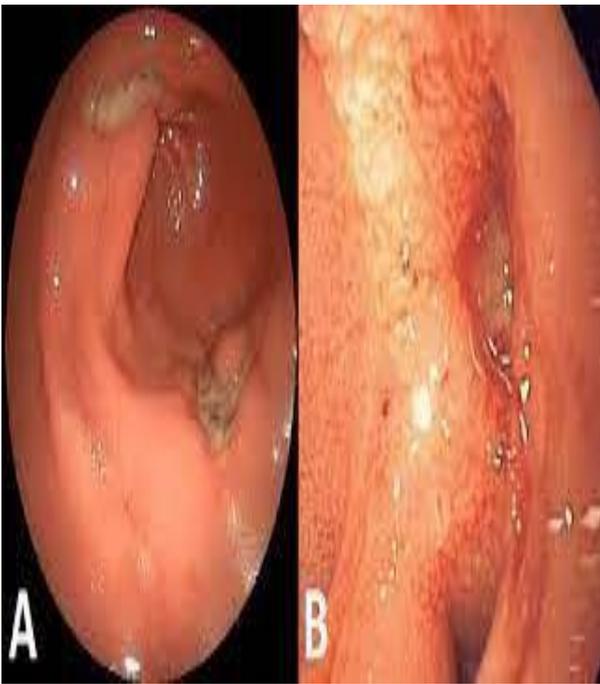
Colorectal Cancer: Colorectal cancer is one of the most prevalent and potentially life-threatening diseases of the colon. It often begins as abnormal growths called polyps, which can be precancerous or cancerous. Symptoms may include changes in bowel habits, blood in the stool, abdominal pain, unexplained weight loss, and fatigue. Regular screening tests such as colonoscopies are essential for early detection, and treatment options can range from surgery to radiation or chemotherapy, depending on the stage and severity of the cancer.

Inflammatory Bowel Disease (IBD): Inflammatory bowel disease refers to chronic inflammation of the gastrointestinal tract, which includes two main conditions: Crohn's disease and ulcerative colitis. Both conditions cause symptoms like diarrhea, abdominal pain, rectal bleeding, weight loss, and fatigue. While the exact causes of IBD are not well-understood, they are believed to involve a combination of genetic, environmental, and immune system factors. Treatment often includes medication to control inflammation, lifestyle changes, and in severe cases, surgery may be necessary.

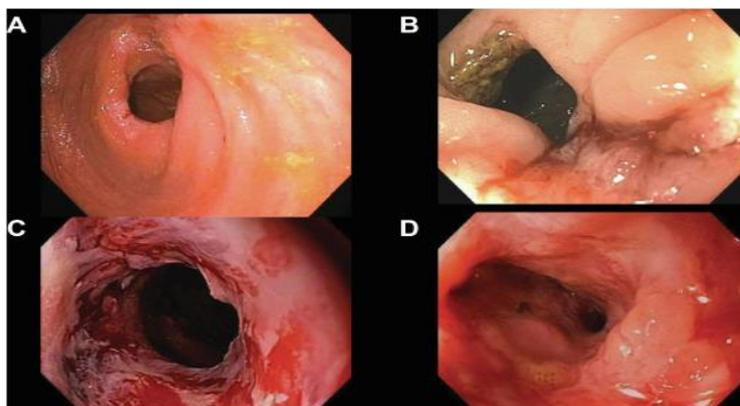
Diverticular Disease: Diverticular disease occurs when small pouches called diverticula form in the colon wall. These pouches can become inflamed or infected, leading to conditions like diverticulosis or diverticulitis. Common symptoms include abdominal pain, bloating, changes in bowel habits, and rectal bleeding. Treatment for diverticular disease may involve dietary changes, medication to alleviate symptoms, and, in severe cases of diverticulitis, hospitalization and antibiotics.

Colorectal Polyps: Colorectal polyps are growths that develop on the inner lining of the colon. While most polyps are benign, some may be precancerous or cancerous. They often don't cause symptoms, but larger polyps or those with specific features can lead to rectal bleeding, changes in bowel habits, and abdominal pain. Polyps are usually detected during colonoscopies and can be removed to prevent the development of colorectal cancer.

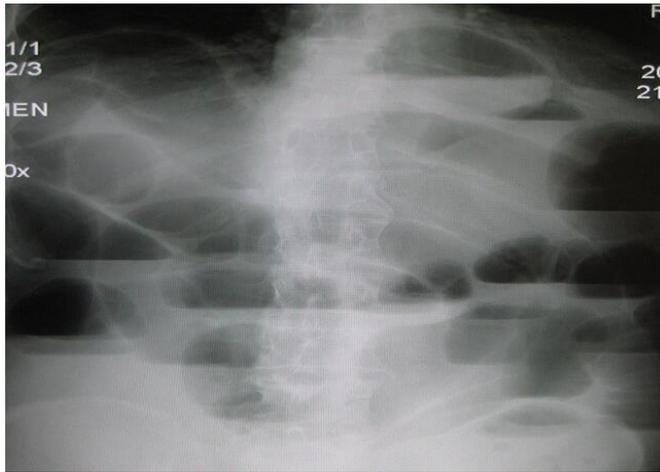
Colitis: Colitis refers to inflammation of the colon, which can be due to various causes, including infections, autoimmune conditions, or ischemia. Symptoms may include diarrhea, abdominal pain, rectal bleeding, and urgency to have a bowel movement. Treatment depends on the underlying cause and severity of symptoms and may include medication, dietary adjustments, and in some cases, surgery.



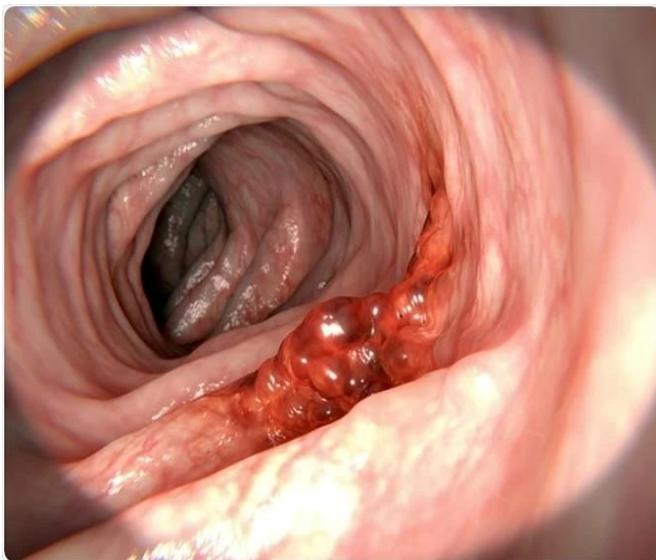
67 year-old female with refractory celiac disease. CT Findings:
 Multiple indications of celiac disease observed in post-contrast CT images.
 Jejunal Abnormalities:
 Long segment of jejunal wall thickening and hyperenhancement (A, long white arrow).
 Concerns raised regarding potential diagnoses of lymphoma or ulcerative jejunitis.
 Duodenal Changes:
 Loss of duodenal folds noted (A, curved black arrow).
 Ileal Alterations:
 Increased number of ileal folds observed (B, black arrow).
 Mesenteric Lymph Nodes:
 Enlargement and augmentation in the size and number of mesenteric lymph nodes identified (B, short straight arrow).



Crohn's Disease Features in Anastomotic Biopsies from Patients With and Without Crohn's Disease



Upright abdominal X-ray demonstrating a small bowel obstruction. Note multiple air fluid levels.



Colorectal Cancer



Single-contrast enema study in a patient with total colitis shows mucosal ulcers with a variety of shapes, including collar-button ulcers, in which undermining of the ulcers occurs, and double-tracking ulcers, in which the ulcers are longitudinally orientated.