Stomatitis and other oral infections

Acute herpetic stomatitis begins suddenly with mouth pain, malaise, lethargy, anorexia, irritability, and fever, which may persist for 1 to 2 weeks. Gums are swollen and bleed easily, and the mucous membrane is extremely tender. Papulovesicular ulcers appear in the mouth and throat and eventually become punched-out lesions with reddened areolae. Submaxillary lymphadenitis is common. Pain usually disappears 2 to 4 days before healing of ulcers is complete. If the child with stomatitis sucks his thumb, these lesions spread to the hand. P A patient with aphthous stomatitis typically reports burning, tingling, and slight swelling of the mucous membrane. Single or multiple shallow ulcers with whitish centers and red borders appear and heal at one site and then reappear at another.

Gastroesophageal reflux

GERD doesn't always cause symptoms, and in patients showing clinical effects, it isn't always possible to confirm physiologic reflux. The most common feature of GERD is heartburn, which may become more severe with vigorous exercise, bending, or lying down, and may be relieved by antacids or sitting upright. The pain of esophageal spasm resulting from reflux esophagitis tends to be chronic and may mimic angina pectoris, radiating to the neck, jaws, and arms. Other symptoms include odynophagia, which may be followed by a dull substernal ache from severe, long-term reflux; dysphagia from esophageal spasm, stricture, or esophagitis; and bleeding (bright red or dark brown). Rarely, nocturnal regurgitation wakens the patient with coughing, choking, and a mouthful of saliva. Reflux may be associated with hiatal hernia. Direct hiatal hernia becomes clinically significant only when reflux is confirmed. Pulmonary symptoms result from reflux of gastric contents into the throat and subsequent aspiration; they include chronic pulmonary disease or nocturnal wheezing, bronchitis, asthma, morning hoarseness, and cough. In children, other signs consist of failure to thrive and forceful vomiting from esophageal irritation. Such vomiting sometimes causes aspiration pneumonia.

Tracheoesophageal fistula and esophageal atresia

A neonate with type C tracheoesophageal fistula with esophageal atresia appears to swallow normally but soon after swallowing coughs, struggles, becomes cyanotic, and stops breathing as he aspirates fluids returning from the blind pouch of the esophagus through his nose and mouth. Stomach distention may cause respiratory distress; air and gastric contents (bile and gastric secretions) may reflux through the fistula into the trachea, resulting in chemical pneumonitis. An infant with type A esophageal atresia appears normal at birth. The infant swallows normally, but as secretions fill the esophageal sac and overflow into the oropharynx, he develops mucus in the oropharynx and drools excessively. When the infant is fed, regurgitation and respiratory distress follow aspiration. Suctioning the mucus and secretions temporarily relieves these symptoms. Excessive secretions and drooling in the neonate strongly suggest esophageal atresia. Repeated episodes of pneumonitis, pulmonary infection, and abdominal distention may signal type E (or H-type) tracheoesophageal fistula. When a child with this disorder drinks, he coughs, chokes, and becomes cyanotic. Excessive mucus builds up in the oropharynx. Crying forces air from the trachea into the esophagus, producing abdominal distention. Because such a child may appear normal at birth, this type of P tracheoesophageal fistula may be overlooked, and diagnosis may be delayed as long as 1 year. Type B (proximal fistula) and type D (fistula to both segments) cause immediate aspiration of saliva into the airway and bacterial pneumonitis.

Corrosive esophagitis and stricture

Effects vary from none at all to intense pain and edema n the mouth, anterior chest pain, marked salivation, inability to swallow, and tachypnea. Bloody vomitus containing pieces of esophageal tissue signals severe damage. Signs of esophageal perforation and mediastinitis, especially crepitation, indicate destruction of the entire esophagus. Inability to speak implies laryngeal damage. The acute phase subsides in 3 to 4 days, enabling the patient to eat again. Fever suggests secondary infection. Symptoms of dysphagia return P if stricture develops, usually within weeks; rarely, stricture is delayed and develops several years after the injury.

Mallory-Weiss syndrome

Mallory-Weiss syndrome typically begins with vomiting of blood or passing large amounts of blood rectally a few hours to several days after forceful vomiting. The bleeding, which may be accompanied by epigastric or back pain, may range from mild to massive, but is usually more profuse than in esophageal rupture. In Mallory-Weiss syndrome, the blood vessels are only partially severed, preventing retraction and closure of the lumen.

Esophageal diverticula

Midesophageal and epiphrenic diverticula with an associated motor disturbance (achalasia or spasm) seldom produce symptoms, although the patient may experience dysphagia and heartburn. Zenker's diverticulum, however, produces distinctly staged symptoms, beginning with initial throat irritation followed by dysphagia and near-complete obstruction. In early stages, regurgitation occurs soon after eating; in later stages, regurgitation after eating is delayed and may even occur during sleep, leading to food aspiration and pulmonary infection. ELDER TIP Hoarseness, asthma, and pneumonitis may be the only signs of esophageal diverticula in elderly patients. Other signs and symptoms include noise when liquids are swallowed, chronic cough, hoarseness, a bad taste in the mouth or foul breath and, rarely, bleeding.

Hiatal hernia

Typically, a paraesophageal hernia produces no symptoms; it's usually an incidental finding during a barium swallow or when testing for occult blood. Because this type of hernia leaves the closing mechanism of the cardiac sphincter unchanged, it rarely causes acid reflux or reflux esophagitis. Symptoms result from displacement or stretching of the stomach and may include a feeling of fullness in the chest or pain resembling angina pectoris. Even if it produces no symptoms, this type of hernia needs surgical treatment because of the high risk of strangulation that can occur when a large portion of stomach becomes caught above the diaphragm. A sliding hernia without an incompetent sphincter produces no reflux or symptoms and, consequently, doesn't require treatment. When a sliding hernia causes symptoms, they are typical of gastric reflux, resulting from the incompetent lower esophageal sphincter (LES), and may include the following: P Pyrosis (heartburn) occurs 1 to 4 hours after eating (especially overeating) and is aggravated by reclining, belching, and increased intra-abdominal pressure. It may be accompanied by regurgitation or vomiting. Retrosternal or substernal chest pain results from reflux of gastric contents, stomach distention, and spasm or altered motor activity. Chest pain usually occurs after meals or at bedtime and is aggravated by reclining, belching, and increased intra-abdominal pressure. Other common symptoms reflect possible complications: Dysphagia occurs when the hernia produces esophagitis, esophageal ulceration, or stricture, especially with ingestion of very hot or cold foods, alcoholic beverages, or a large amount of food. Bleeding may be mild or massive, frank or occult; the source may be esophagitis or erosions of the gastric pouch. Severe pain and shock result from incarceration,

in which a large portion of the stomach is caught above the diaphragm (usually occurs with paraesophageal hernia). Incarceration may lead to perforation of the gastric ulcer and strangulation and gangrene of the herniated portion of the stomach. It requires immediate surgery.

Gastritis

After exposure to the offending substance, the patient with acute gastritis typically reports a rapid onset of symptoms, such as epigastric discomfort, indigestion, cramping, anorexia, nausea, vomiting, and hematemesis. The symptoms last from a few hours to a few days. The patient with chronic gastritis may describe similar symptoms or may have only mild epigastric discomfort, or his complaints may be vague, such as an intolerance for spicy or fatty foods or slight pain relieved by eating. The patient with chronic atrophic gastritis may be asymptomatic.

Gastroenteritis

Signs and symptoms vary depending on the pathologic organism and on the level of GI tract involved. However, gastroenteritis in adults is usually an acute, self-limiting, nonfatal disease producing diarrhea, abdominal discomfort (ranging from cramping to pain), nausea, and vomiting. Other possible signs and symptoms include fever, malaise, and borborygmi. In children, the elderly, and the debilitated, gastroenteritis produces the same symptoms, but these patients' intolerance to electrolyte and fluid losses leads to a higher mortality.

Peptic ulcers

Heartburn and indigestion usually signal the beginning of a gastric ulcer attack. Eating stretches the gastric wall and may cause or, in some cases, relieve pain and feelings of fullness and distention. Other typical effects include weight loss and repeated episodes of massive GI bleeding. Duodenal ulcers produce heartburn, well-localized midepigastric pain (relieved by food), weight gain (because the patient eats to relieve discomfort), and a peculiar sensation of hot water bubbling in the back of the throat. Attacks usually occur about 2 hours after meals, whenever the stomach is empty, or after consumption of orange juice, coffee, aspirin, or alcohol. Exacerbations tend to recur several times per year and then fade into remission. Vomiting and other digestive disturbances are rare. Ulcers may penetrate the pancreas and cause severe back pain. Other complications of peptic ulcers include perforation, hemorrhage, and pyloric obstruction. Ulcers may, on occasion, produce no symptoms.

Ulcerative colitis

The hallmark of ulcerative colitis is recurrent attacks of bloody diarrhea, in many cases containing pus and mucus, interspersed with asymptomatic remissions. The intensity of these attacks varies with the extent of inflammation. It isn't uncommon for a patient with ulcerative colitis to have as many as 15 to 20 liquid, bloody stools daily. Other symptoms include spastic rectum and anus, abdominal pain, irritability, weight loss, weakness, anorexia, nausea, and vomiting. Ulcerative colitis may lead to complications, such as hemorrhage, stricture, or perforation of the colon. Other complications include joint inflammation, ankylosing spondylitis, eye lesions, mouth ulcers, liver disease, and pyoderma gangrenosum. Scientists think that these complications occur when the immune system triggers inflammation in other parts of the body. These disorders are usually mild and disappear when the colitis is treated. Patients with ulcerative colitis have an increased risk of developing colorectal cancer; children with ulcerative colitis may experience impaired growth and sexual development.

Necrotizing enterocolitis

Neonates who have suffered from perinatal hypoxemia have the potential for developing NEC. A distended (especially tense or rigid) abdomen with gastric retention is the earliest and most common sign of oncoming NEC, which usually appears 1 to 10 days after birth. Other clinical features are increasing residual gastric contents (which may contain bile), bile-stained vomitus, and occult blood in the stool. About 25% of patients have bloody diarrhea. A red or shiny, taut abdomen may indicate peritonitis. Nonspecific signs and symptoms include thermal instability, lethargy, metabolic acidosis, jaundice, and DIC. The major complication is perforation, which requires surgery. Recurrence of NEC and mechanical and functional abnormalities of the intestine, especially stricture, are P the usual cause of residual intestinal malfunction in any infant who survives acute NEC; this complication may develop as late as 3 months postoperatively.

Crohn's disease

Clinical effects may be mild and nonspecific initially; they vary according to the location and extent of the lesion. Acute inflammatory signs and symptoms mimic appendicitis and include steady, colicky pain in the right lower quadrant, cramping, tenderness, flatulence, nausea, fever, and diarrhea. Bleeding may occur and, although usually mild, may be massive. Bloody stools may also occur. Chronic symptoms, which are more typical of the disease, are more persistent and less severe; they include diarrhea (four to six stools per day) with pain in the right lower abdominal quadrant, steatorrhea (excess fat in feces), marked weight loss and, rarely, clubbing of fingers. The patient may complain of weakness and fatigue. Complications include intestinal obstruction, fistula formation between the small bowel and the bladder, perianal and perirectal abscesses and fistulas, intra-abdominal abscesses, and perforation.

Pseudomembranous enterocolitis

Pseudomembranous enterocolitis begins suddenly with copious watery or bloody diarrhea that may contain pus or mucus, abdominal pain, and fever. Serious complications, including severe dehydration, electrolyte imbalance, hypotension, shock, and colonic perforation, may occur in this disorder.

Irritable bowel syndrome

IBS characteristically produces lower abdominal pain (usually relieved by defecation or passage of gas) and diarrhea that typically occurs during the day. These symptoms alternate with constipation or normal bowel function. Stools are commonly small and contain visible mucus. Dyspepsia and abdominal distention may occur. Symptoms of IBS are two to three times more common in women than in men, with women comprising 80% of patients with a more severe form of the disorder.

Celiac disease

Celiac disease produces clinical effects on many body systems: GI symptoms include recurrent attacks of diarrhea, steatorrhea, abdominal distention due to flatulence, stomach cramps, weakness, anorexia and, occasionally, increased appetite without weight gain. Atrophy of intestinal villi leads to malabsorption of fat, carbohydrates, and protein as well as loss of calories, fat-soluble vitamins (A, D, and K), calcium, and essential minerals and electrolytes. In adults, celiac disease produces multiple nonspecific ulcers in the small bowel, which may perforate or bleed. Hematologic effects include normochromic, hypochromic, or macrocytic anemia due to poor absorption of folate, iron, and vitamin B12 and to hypoprothrombinemia from jejunal loss of vitamin K. Osteomalacia, osteoporosis, tetany, and bone pain (especially in the lower back, rib cage, and pelvis) are some of

the musculoskeletal symptoms of celiac disease. These signs and symptoms are due to calcium loss and vitamin D deficiency, which weakens the skeleton, causing rickets in children and compression fractures in adults. Neurologic effects may include peripheral neuropathy, seizures, or paresthesia. Dry skin, eczema, psoriasis, dermatitis herpetiformis, and acne rosacea are some of the dermatologic effects of celiac disease. Deficiency of sulfur-containing amino acids may cause generalized fine, sparse, prematurely gray hair; brittle nails; and localized hyperpigmentation on the face, lips, or mucosa. Endocrine symptoms include amenorrhea, hypometabolism and, possibly, with severe malabsorption, adrenocortical insufficiency. Psychosocial effects include mood changes and irritability. Symptoms may develop during the first year of life, when gluten is introduced into the child's diet as cereal. Clinical effects may disappear during adolescence and reappear in adulthood. One theory proposes that the age at which symptoms first appear depends on the strength of the genetic factor: A strong factor produces symptoms during the child's first 4 years; a weak factor, in late childhood or adulthood.

Diverticular disease

Diverticulosis usually produces no symptoms but may cause recurrent left lower quadrant pain, which is commonly accompanied by alternating constipation and diarrhea and is relieved by defecation or the passage of flatus. Symptoms resemble irritable bowel syndrome (IBS) and suggest that both disorders may coexist. Mild diverticulitis produces moderate left lower abdominal pain, mild nausea, gas, irregular bowel habits, low-grade fever, and leukocytosis. In severe diverticulitis, the diverticula can rupture and produce abscesses or peritonitis, which occurs in up to 20% of such patients. Symptoms of rupture include abdominal rigidity and left lower quadrant pain. Peritonitis follows release of fecal material from the rupture site and causes signs of sepsis and shock (high fever, chills, and hypotension). Rupture of the diverticulum near a vessel may cause microscopic or massive hemorrhage, depending on the vessel's size. Chronic diverticulitis may cause fibrosis and adhesions that narrow the bowel's lumen and lead to bowel obstruction. Symptoms of incomplete obstruction are constipation, ribbonlike stools, intermittent diarrhea, and abdominal distention. Increasing obstruction causes abdominal rigidity and pain, diminishing or absent bowel sounds, nausea, and vomiting.

Appendicitis

Typically, appendicitis begins with generalized or localized abdominal pain in the right upper abdomen, followed by anorexia, nausea, and vomiting (rarely profuse). Pain eventually localizes in the right lower abdomen (McBurney's point) with abdominal “boardlike” rigidity, retractive respirations, increasing tenderness, increasingly severe abdominal spasms and, almost invariably, rebound tenderness. (Rebound tenderness on the opposite side of the abdomen suggests peritoneal inflammation.) Later signs and symptoms include constipation or diarrhea, slight fever, and tachycardia. The patient may walk bent over or lie with his right knee flexed to reduce pain.

Peritonitis

The key symptom of peritonitis is sudden, severe, and diffuse abdominal pain that tends to intensify and localize in the area of the underlying disorder. For instance, if appendicitis causes the rupture, pain eventually localizes in the right lower quadrant. Many patients display weakness, pallor, excessive sweating, and cold skin as a result of excessive loss of fluid, electrolytes, and protein into the abdominal cavity. Decreased intestinal motility and paralytic ileus result from the effect of bacterial toxins on the intestinal muscles. Intestinal obstruction causes nausea, vomiting, and abdominal rigidity. Other clinical characteristics include hypotension, tachycardia, signs and

symptoms of dehydration (oliguria, thirst, dry swollen tongue, and P pinched skin), an acutely tender abdomen associated with rebound tenderness, temperature of 103° F (39.4° C) or higher, and hypokalemia. Inflammation of the diaphragmatic peritoneum may cause shoulder pain and hiccups. Abdominal distention and resulting upward displacement of the diaphragm may decrease respiratory capacity. Typically, the patient with peritonitis tends to breathe shallowly and move as little as possible to minimize pain. He may lie on his back, with his knees flexed, to relax abdominal muscles.

Intestinal obstruction

Colicky pain, nausea, vomiting, constipation, and abdominal distention characterize small-bowel obstruction. It may also cause drowsiness, intense thirst, malaise, and aching and may dry up oral mucous membranes and the tongue. Auscultation reveals bowel sounds, borborygmi, and rushes; occasionally, these are loud enough to be heard without a stethoscope. Palpation elicits abdominal tenderness, with moderate distention; rebound tenderness occurs when obstruction has caused strangulation with ischemia. In late stages, signs of hypovolemic shock result from progressive dehydration and plasma loss.

Inguinal hernia

Inguinal hernia usually causes a lump to appear over the herniated area when the patient stands or strains. The lump disappears when the patient is supine. Tension on the herniated contents may cause a sharp, steady pain in the groin, which fades when the hernia is reduced. Strangulation produces severe pain and may lead to partial or complete bowel obstruction and even intestinal necrosis. Partial bowel obstruction may cause anorexia, vomiting, pain and tenderness in the groin, an irreducible mass, and diminished bowel sounds. Complete obstruction may cause shock, high fever, absent bowel sounds, and bloody stools.

Intussusception

In an infant or child, intussusception produces four cardinal clinical effects: Intermittent attacks of colicky pain cause the child to scream, draw his legs up to his abdomen, turn pale and diaphoretic and, possibly, display grunting respirations. Vomiting of stomach contents may occur initially, followed by further vomiting of bilestained or fecal material. “Currant-jelly” stools, containing a mixture of blood and mucus, may be observed. The patient will have a tender, distended abdomen, with a palpable, sausage-shaped abdominal mass; the viscera are usually absent from the right lower quadrant. In adults, intussusception produces nonspecific, chronic, and intermittent symptoms, including colicky abdominal pain and tenderness, vomiting, diarrhea (occasionally constipation), bloody stools, and weight loss. Abdominal pain usually localizes in the right lower quadrant, radiates to the back, and increases with eating. Adults with severe intussusception may develop strangulation with excruciating pain, abdominal distention, and tachycardia.

Volvulus

Vomiting and rapid, marked abdominal distention follow sudden onset of severe abdominal pain. Nausea, vomiting, bloody stools, constipation, and shock may occur. Without immediate treatment, volvulus can lead to strangulation of the twisted bowel loop, ischemia, infarction, perforation, and fatal peritonitis.

Inactive colon

The primary symptom of inactive colon is chronic constipation. The patient commonly strains to produce hard, dry stools accompanied by mild abdominal discomfort. Straining can aggravate other rectal conditions such as hemorrhoids.

Pancreatitis

In many patients, the first and only symptom of mild pancreatitis is steady epigastric pain centered close to the umbilicus, radiating between the tenth thoracic and sixth lumbar vertebrae, and unrelieved by vomiting. However, a severe attack causes extreme pain, persistent vomiting, abdominal rigidity, diminished bowel activity (suggesting peritonitis), crackles at lung bases, and left pleural effusion. Progression produces extreme malaise and restlessness, with mottled skin, tachycardia, low-grade fever (100° to 102° F [37.7° to 38.8° C]), and cold, sweaty extremities. The proximity of the inflamed pancreas to the bowel may cause ileus. If pancreatitis damages the islets of Langerhans, complications may include diabetes mellitus. Fulminant pancreatitis causes massive hemorrhage and total destruction of the pancreas, resulting in diabetic acidosis, shock, or coma.

Hemorrhoids

Although hemorrhoids may be asymptomatic, they characteristically cause painless, intermittent bleeding, which occurs on defecation. Bright red blood appears on stool or on toilet paper due to injury of the fragile mucosa covering the hemorrhoid. These first-degree hemorrhoids may itch because of poor anal hygiene. When second-degree hemorrhoids prolapse, they're usually painless and spontaneously return to the anal canal following defecation. Third-degree hemorrhoids cause constant discomfort and prolapse in response to any increase in intra□abdominal pressure. They must be manually reduced. Thrombosis of external hemorrhoids produces sudden rectal pain and a subcutaneous, large, firm lump that the patient can feel. If hemorrhoids cause severe or recurrent bleeding, they may lead to secondary anemia with significant pallor, fatigue, and weakness; however, such systemic complications are rare.

Anorectal abscess and fistula

Characteristics are throbbing pain and tenderness at the site of the abscess. A hard, painful lump develops on one side, preventing comfortable sitting. Discharge of pus may occur from the rectum, and there may be constipation or pain associated with bowel movements.

Rectal polyps

Because rectal polyps don't generally cause symptoms, they're usually discovered incidentally during a digital examination or rectosigmoidoscopy. Rectal bleeding is a common sign; high rectal polyps leave a streak of blood on the stool, whereas low rectal polyps bleed freely. Rectal polyps vary in appearance. Common polypoid adenomas are small, multiple lesions that are redder than normal mucosa. They're commonly pedunculated (attached to rectal mucosa by a long, thin stalk) and granular, with a red, lobular, or eroded surface. Villous adenomas are usually sessile (attached to the mucosa by a wide base) and vary in size from 0.5 to 12 cm. They are soft, friable, and finely lobulated. They may grow large and cause painful defecation; however, because adenomas are soft, they rarely cause bowel obstruction. Sometimes adenomas prolapse outside the anus, expelling parts of the adenoma with feces. These polyps may cause diarrhea, bloody stools, and subsequent fluid and electrolyte depletion, with hypotension and oliguria. In hereditary polyposis, rectal polyps resemble benign adenomas but occur as hundreds of small (0.5 cm) lesions carpeting the entire mucosal surface. Associated signs include diarrhea, bloody stools, and secondary anemia. In patients

with hereditary polyposis, changes in bowel habits with abdominal pain usually signal rectosigmoid cancer. P Juvenile polyps are large, inflammatory lesions, commonly without an epithelial covering. Mucus-filled cysts cover their usually smooth surface. Focal polypoid hyperplasia produces small (less than 3 mm), granular, sessile lesions, similar to the colon in color, or gray or translucent. They usually occur at the rectosigmoid junction.

Pilonidal disease

Generally, a pilonidal cyst produces no symptoms until it becomes infected, causing local pain, tenderness, swelling, or heat. Other clinical features include continuous or intermittent purulent drainage, followed by development of an abscess, chills, fever, headache, and malaise.

Rectal prolapse

In rectal prolapse, protrusion of tissue from the rectum may occur during defecation or walking. Other symptoms include a persistent sensation of rectal fullness, bloody diarrhea, pain in the lower abdomen due to ulceration, a feeling of incomplete evacuation, and rectal incontinence. Hemorrhoids or rectal polyps may coexist with a prolapse.

Anal fissure

Onset of an acute anal fissure is characterized by tearing, cutting, or burning pain during or immediately after a bowel movement. A few drops of blood may streak toilet paper or underclothes. Painful anal sphincter spasms result from ulceration of a “sentinel pile” (swelling at the lower end of the fissure). A fissure may heal spontaneously and completely or it may partially heal and break open again. Chronic fissure produces scar tissue that hampers normal bowel evacuation.

Pruritus ani

The key symptom of pruritus ani is perianal itching or burning after a bowel movement, during stress, or at night. In acute pruritus ani, scratching produces reddened skin, with weeping excoriations; in chronic pruritus ani, skin becomes thick and leathery, with excessive pigmentation.

Proctitis

Key symptoms include tenesmus, constipation, a feeling of rectal fullness, and abdominal cramps on the left side. The patient feels an intense urge to defecate, which produces a small amount of stool that may contain blood and mucus.