GASTROINTESTINAL SYSTEM

Overview

Signs & Symptoms

Diseases & Disorders

Treatments & Procedures
The proximal segment of the large intestine, it is short and pouch-like and contains a short, narrow appendage known as the appendix.
The largest segment of the large intestine, it extends from the cecum to the rectum and includes the ascending colon, transverse colon, descending colon, and sigmoid colon.
The first segment of the small intestine, it receives material from the stomach via the pyloric valve. It also receives pancreatic juice from the pancreas and bile from the liver and gallbladder.
Esophagus
(eh SOFF ah guss)

The muscular tube that moves food by peristalsis from the pharynx to the stomach.
Lower Esophageal or Cardiac Sphincter
(æh SOFF ah JEE al SFINGK ter)

A ring-shaped muscle at the border of the esophagus and the stomach.

Abbreviated LES
The third segment of the small intestine that delivers digestive waste material to the cecum of the large intestine.
Jejunum
(jee JOO num)

The middle segment of the small intestine. It lies between the duodenum and the ileum.
Palate

(PAHL aht)

The roof of the mouth, including an anterior hard palate and a posterior soft palate.
An organ that secretes pancreatic juice (a mixture of digestive enzymes) into the small intestine. It also secretes the hormones insulin and glucagon, which regulate blood sugar levels.
The Peritoneum is a serous membrane that lines the abdominal cavity and covers most of the abdominal organs.
The constricted, distal area of the stomach terminating at the pyloric valve.

Pylorus or Pyloric Sphincter
(py e LOR uss)
The distal, straight segment of the large intestine; its terminal opening is the anus.
A small, mucosa-covered set of muscles, musculus uvulae, hanging down from the soft palate, near the back of the throat. The word is derived from the diminutive of uva, the Latin word for "grape", due to the uvula's grape-like shape.
A sac-like organ behind the liver that stores bile.
Muscular contractions of digestive tract (peristalsis)

Movement of the esophagus and lower GI tract produced by waves of smooth muscle contraction, resulting in propulsion of GI tract contents.
**Aphagia**
(ah FAY jee ah)

Loss of the ability to swallow.
An accumulation of fluid within the peritoneal cavity; a symptom of liver dysfunction.
A frequent discharge of watery fecal material which may be caused by an improper diet, but more commonly by infection of virus, bacteria, or protozoa. It can lead to severe dehydration.
Chronic or recurrent pain or discomfort centered in the upper abdomen. Discomfort, in this context, includes mild pain, upper abdominal fullness and feeling full earlier than expected with eating. It can be accompanied by bloating, belching, nausea or heartburn. [5]
Dysphagia
(diss FAY jee ah)

Difficulty in swallowing
Flatus or Flatulence
(FLAY tuss)

A condition of gas trapped in the GI tract or released through the anus.
Bad breath.

Though the causes of breath odor are not entirely understood, most unpleasant odors are known to arise from proteins trapped in the mouth which are processed by oral bacteria. [5]
Hematemesis
(hee mah TEM eh siss)

the vomiting of blood. The source is generally the upper gastrointestinal tract.
Hepatomegaly
(HEPP ah toh MEG ah lee)

Enlargement of the liver
A yellowish staining of the skin, sclera of the eyes, and deeper tissues caused by the accumulation of bile pigments in the bloodstream that are normally removed by the liver and thus, a symptom of liver dysfunction. It may also be a symptom of red blood cell destruction.
Nausea
(NAW see ah)

From the Latin and Greek word for seasickness, it is a symptomatic urge to vomit; when accompanied by vomiting.

It may be abbreviated N&V.

Mild nausea may be relieved by applying acupressure on the inside of your wrist.
Inflammation of the appendix. While mild cases may resolve without treatment, most require removal of the inflamed appendix, either by laparotomy or laparoscopy.
Inflammation of the gallbladder.

Cholecystitis
(koh lee siss TYE tiss)

Inflammation in liver bed, bile duct and surrounding tissues.
Generalized condition of gallstones.

Gallstones can occur anywhere within the biliary tree, including the gallbladder and the common bile duct. Obstruction of the common bile duct is choledocho lithiasis; obstruction of the biliary tree can cause jaundice; obstruction of the outlet of the pancreatic exocrine system can cause pancreatitis. Cholelithiasis is the presence of stones in the gallbladder—chole- means "bile", lithia means "stone", and -sis means "process". [5]
A chronic, progressive liver disease resulting from hepatic cell failure, which may be caused by chronic alcoholism or viral infection.

Characterized by a chronic deterioration of the liver, replacing healthy cells with connective tissue that causes a mottled appearance.
Inflammation of the colon; when the condition is chronic and results in the formation of colonic ulcers, it is called ulcerative colitis, the main symptom of which is severe and sometimes bloody diarrhea.
a common digestive disease particularly found in the large intestine. Diverticulitis develops from diverticulosis, which involves the formation of pouches (diverticula) on the outside of the colon. Diverticulitis results if one of these diverticula becomes inflamed. [5]
The condition of having diverticula in the colon which are outpocketings of the colonic mucosa and submucosa through weaknesses of muscle layers in the colon wall. These are more common in the sigmoid colon, which is a common place for increased pressure. [5]
Dysentery
(DISS in tair ee)

Severe inflammation of the intestine marked by frequent diarrhea, abdominal pain, fever, and dehydration. It is usually caused by infection by bacteria or protozoa.

Source: Life Straw
Inflammation of the small intestine.

Acute enteritis is usually due to bacteria or viruses. When food is involved, foodborne illness is to be suspected. If other family members or members of the household are affected, this may signify infectious causes.

Chronic enteritis can be due to Crohn's disease, giardiasis, tuberculosis, coeliac disease, or rarely due to Whipple's disease.
Esophagitis
(eh soff ah JYE tiss)

Inflammation of the esophagus.
Inflammation of the gastric mucosa of the stomach. Depending on the cause, gastritis may persist acutely or chronically and may coincide with more serious conditions such as atrophy of the stomach. [5]
Inflammation of the stomach and small intestine.

The inflammation is caused by infection with certain bacteria, viruses, parasites, or less commonly adverse reaction to something in the diet or medication. [5]
Recurring backflow of stomach contents into the esophagus as a result of a weakened lower esophageal sphincter, producing burning pain.

Abbreviated GERD
Inflammation of the gums. Usually caused by bacterial plaque that accumulates in the spaces between the gums and the teeth and in calculus (tartar) that forms on the teeth. These accumulations may be tiny, even microscopic, but the bacteria in them produce foreign chemicals and toxins that cause inflammation of the gums around the teeth. [5]
Inflammation of the tongue. It causes the tongue to swell and change color. Finger-like projections on the surface of the tongue (papillae) may be lost, causing the tongue to appear smooth.

Glossitis usually responds well to treatment if the cause of inflammation is removed. This disorder may be painless, or it may cause tongue and mouth discomfort. [5]
Hemorrhoids
(HEM oh roydz)

A varicose (swollen) condition of veins in the anus that results in painful swellings.
# Hepatitis Viruses

<table>
<thead>
<tr>
<th>Virus Family</th>
<th>Hepatitis A Picornavirus</th>
<th>Hepatitis E Calicivirus</th>
<th>Hepatitis B Hepadnavirus</th>
<th>Hepatitis C Flavivirus</th>
<th>Delta virus Satellite virus (only in combination with HBV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonality</td>
<td>All generate conditions of illness in the liver</td>
<td>All the same – malaise, dark urine, anorexia, nausea, vomiting, jaundice</td>
<td>Sex, blood and close contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic condition</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Virus genome</td>
<td>+ss RNA</td>
<td>+ss RNA</td>
<td>DNA with reverse transcriptase activity</td>
<td>+ss RNA</td>
<td>-ss RNA</td>
</tr>
<tr>
<td>Virus antigens</td>
<td>HA Ag</td>
<td>HEV ORF2 proteins</td>
<td>HBsAg</td>
<td>HBeAg</td>
<td>Delta antigen</td>
</tr>
<tr>
<td>Incubation</td>
<td>1 month (15 – 50 d)</td>
<td>4 months (45 – 160 d)</td>
<td>2 months (15 – 150 d)</td>
<td>1 – 2 months</td>
<td></td>
</tr>
<tr>
<td>Current therapeutics</td>
<td>No specific treatment</td>
<td>No specific treatment</td>
<td>Interferon alpha, Lambivudine, Adefovir, Etocavir</td>
<td>Interferon alpha + ribavirin, Pegylated Interferon</td>
<td>Follow HBV therapy</td>
</tr>
<tr>
<td>Vaccines available?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Can be prevented by vaccination against HBV</td>
</tr>
</tbody>
</table>

Source: Abbott Diagnostics
Hiatal Hernia
(high AY tal HER nee ah)

Protrusion of part of the stomach upward through an opening in the diaphragm normally penetrated by the esophagus, known as the esophageal hiatus.
An obstruction of the intestine. Symptoms include pain, vomiting, and often fever and dehydration.
Inguinal Hernia
(ING gwih nal HER nee ah)

Protrusion of a loop of the small intestine through the abdominal wall in the inguinal (groin) region.

A direct inguinal hernia occurs among males and is a protrusion into the scrotal cavity.
An infolding of a segment of the intestine within another segment. This often causes a reduction of intestinal motility and is often associated with polyp formation.
The inflammation of the pancreas.

- Acute pancreatitis is an acute episode of pancreatitis.
- Chronic pancreatitis is the "inflammation of the pancreas that is characterized by recurring or persistent abdominal pain with or without steatorrhea or diabetes mellitus." [5]
An inflammation of one or both parotid glands, the major salivary glands located on either side of the face.

Parotitis is most often caused by a bacterial infection of Staphylococcus aureus, but can result from viral infection, and other causes. The most common viral cause of parotitis is mumps. [5]
Inflammation of the peritoneum (the serous membrane which lines part of the abdominal cavity and some of the viscera it contains). It may be localized or generalized, generally has an acute course, and may depend on either infection (often due to rupture of a hollow viscus) or on a non-infectious process.
Presence of many polyps, usually in the colon or rectum, which poses a high level of risk for malignancy.
Inflammation of the mucous lining of any of the structures in the mouth, which may involve the cheeks, gums, tongue, lips, throat, and roof or floor of the mouth. The inflammation can be caused by conditions in the mouth itself, such as poor oral hygiene, poorly fitted dentures, or from mouth burns from hot food or drinks, or by conditions that affect the entire body, such as medications, allergic reactions, or infections. [5]
A protrusion of a loop of the intestine through the abdominal wall in the umbilical region (the area surrounding the umbilicus, or navel).
When the small intestine twists, causing an obstruction that can lead to severe complications.
Plastic surgery of the abdomen in which excess fatty tissue and skin are removed, usually for cosmetic purposes. [10]
A drug that is effective against vomiting and nausea. Anti-emetics are typically used to treat motion sickness and the side effects of opioid analgesics, general anesthetics and chemotherapy directed against cancer. [5]
Surgical removal, or excision, of the appendix.

Source: Wikimedia Commons
Cholangiogram (koh LAHN jee oh gram)

X-ray image of the bile ducts between the liver, gallbladder, and duodenum.
Cholecystectomy (KOH lee siss TEK toh mee)

Excision of the gallbladder
Incision into the common bile duct, which is performed to remove one or more obstructive stones.

Choledocholithotomy
(koh LEH doh koh lih THOTT oh mee)
Colectomy (koh LEK toh mee)

A colectomy may be done anywhere within the shaded areas of the diagrams.

Source: The Cancer Council of New South Wales
Colonoscopy examines the entire length of the colon; sigmoidoscopy examines only the lower third.

Visual examination of the colon, using a colonoscope.

Colonoscopy (koh lunn OSS koh pee)
Surgical creation of an opening into the colon by way of the abdominal wall, which establishes an artificial anus, and may be temporary or permanent as a treatment for cancer, obstructions, or ulcerative colitis.

Colostomy
(koh LOSS toh mee)
Fecal Occult Blood Test
(FEE kal uh CULT)

A lab test performed to detect blood in the feces.
A cleansing procedure in which the stomach is rinsed with a saline solution.

Source: Kimberly-Clark Healthcare
Visual examination of the stomach with a gastroscope (GAS troh skope), a specialized type of endoscope.
Glossorrhaphy
(gloss or ah fee)

Suture of the tongue.
Hemorrhoidectomy (HEM oh royd EK toh mee)

Excision of hemorrhoids.
Surgical repair of a hernia.

Herniorrhaphy
(HER nee OR ah fee)

Surgical repair of a hernia.
Polypectomy
(pall in PEK toh mee)

Excision of a polyp

Tissue is removed from the colon for examination
Sigmoidoscopy
(sig moyd OSS koh pee)

Visual examination of the sigmoid colon with a sigmoidoscope, a specialized type of endoscope.

Colonoscopy examines the entire length of the colon; sigmoidoscopy examines only the lower third.
Surgical repair of uvula, palate, and pharynx, which is usually performed to correct obstructive sleep apnea.

Abbreviated UPPP.
1. Centers for Disease Control & Prevention (http://phil.cdc.gov/phil/home.asp)
2. Unlocking Medical Terminology by Bruce Wingerd
3. Medline Plus
4. Wikimedia Commons (http://commons.wikimedia.org/wiki/Main_Page)
5. Wikipedia (http://en.wikipedia.org/)
6. The Language of Medicine by Davi-Ellen Chabner
7. National Library of Medicine
8. World Health Organization (http://www.who.int/en/)
10. American Heritage Stedman’s Medical Dictionary