

Biliary Structures



PLAY PICMONIC

Gallbladder

Gallbladder

The gallbladder is a small organ located in the right upper quadrant of the abdomen, beneath the liver. It has a shape like a pear. It stores bile, which is then secreted into the small intestines. Gallstones in the gallbladder will show filling defects in cholangiography and a typical acoustic shadow on ultrasound.

Cystic Duct

Sisters with Duck

The cystic duct connects the gallbladder to the common bile duct. Various disorders can occur in the cystic duct, such as calculous disease, cystic duct-duodenal fistula, Mirizzi syndrome, neoplasia, biliary obstruction, and primary sclerosing cholangitis.

Common Hepatic Duct

Commoner Liver Duck

The right (usually short) and left hepatic ducts that exit from the liver will come together to form a common hepatic duct. The common hepatic duct is the first part of the biliary tract, and it secretes bile released by the liver to the small intestines. This duct is an important anatomic landmark during surgeries such as cholecystectomy. A high volume of bile is seen in this duct in patients who have had their gallbladder removed.

Common Bile Duct

Commoner Bile Duck

The common hepatic duct and cystic duct will come together to form the common bile duct. The presence of gallstones in the common bile duct is called choledocholithiasis. Obstruction in this event has an increased risk of infection known as ascending cholangitis. This infection usually occurs due to bacteria ascending from its connection to the duodenum.

Pancreatic Duct

Pancreas Duck

The pancreatic duct will join the common bile duct just before the ampulla Vater. The pancreatic duct is also known as the duct of Wirsung or the major pancreatic duct. It is common to have only one pancreatic duct, but some people can also have an additional accessory pancreatic duct, which is known as the duct of Santorini. Piled-up bile from obstructed events can lead to pancreatitis.

Major Duodenal Papilla

Major Dodo-denim Paper

The major duodenal papilla, or papilla of Vater, is a rounded projection in the second part of the duodenum where the common bile duct and pancreatic duct drain their secretions to the duodenum. The circular muscle sphincter of Oddi surrounds it, and it collects substances from the ampulla of Vater.

Ampulla Vater

Amp-pull-up Vader

Ampulla Vater is the meeting area between the common bile and pancreatic ducts. It is named the ampulla because it is a common bile duct dilation part. It is also known as the hepatopancreatic ampulla or the hepatopancreatic duct. Cancer of the ampulla vater can be seen in the presence of Thomas's sign, characterized by silver stools.

Sphincter of Oddi

Sphinx O-D

The sphincter of Oddi is a circular muscle wrapping the major duodenal papilla. It is used to control the flow of bile from the gallbladder and pancreatic juice from the pancreas to the duodenum. Obstruction in the common bile duct can cause inadequate drainage of the pancreatic juice, causing pancreatitis.

Minor Duodenal Papilla

Miner Dodo-denim Paper

The minor duodenal papilla is a projection from the accessory pancreatic duct to the duodenum. It can be present in some people, and in others, it may not be present at all.