

Biliary Tree

Anatomy:

The biliary tree is collection of ducts that connect the liver, gallbladder and pancreas to the second part of the duodenum. There can be enormous variety in the anatomy of the biliary tree and it is important to have a good understanding of the anatomy prior to any operation.

The “classic” anatomy is thus. The left and right hepatic ducts join at the confluence to form the common hepatic duct, which is typically 1-4cm in length. The cystic duct joins with the common hepatic duct to form the common bile duct, which is about 5-17cm in length and 3-8mm in diameter. The common bile duct is divided into four parts: supraduodenal, retroduodenal, infraduodenal and intraduodenal portions.

The intraduodenal portion enters the second part of the duodenum’s wall obliquely. It is surrounded by the complex sphincter of Oddi and then terminates by opening on the summit of the ampulla of Vater.

The extrahepatic bile ducts are lined by columnar epithelium with numerous mucosal glands in the common bile duct.

Arterial Supply

The arterial supply to the bile ducts is from the gastroduodenal artery and also from the right hepatic artery, with major trunks running along the medial and lateral walls.