Management of strictures of the common bile duct

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Strictures of the C.B.D. can be classified into benignand malignant strictures of The postoperative striatum is the most predominant and important in the benign type (90 - 97 %) . The remaining (3-10 %) includes other rare conditions The malignant stricture includes ,carcinoma of the C.B.D. and periampullary carcinomas . There is no more distressing situation in abdominal sur-gery than the responsibility of treating a patient who has developed a stricture of the C.B.D. , following operation on the biliary tract . The occurance of such stricture is a catastrophe not only to the patient but also to the surgeon who performed the operation. The problem of C.B.D. stricture is that it needs highly skilled repair procedure , besides its morbidity and mortal-ity usually due to liver cell failure (biliary cirrhosis) due to prolonged obstructive jaundice .The procedures for treatment is only operation in majo-rity of cases wether to deal with the stricture and its correction or for decompression of biliary obstruction . The most important aspect in stricture C.B.D. is the prevention , this is achieved by attention to the details of the operation and techniques of cholecystectomy and exploration of the biliary tract , these should bestrictly applied by the surgeon , and he should work by sight and not by faith .Rules to be applied in cholecystectomy1-Good anaesthesia with complete muscular relaxation .2-Optimum exposure of the operative field through highly right paramedian or midline incisions .3-The best possible illumination .4-Putting the C.B.D. on the stretch , and careful anatomical dissection of the cystic artery , and bile duct in Calot’s triangle should be stressed .5-The cystic artery must be isolated and dissected free in majority of cases . It is securely tied and cut before the cystic duct is fully stretched out and ligature applied to it very near to the point where it enters the junction of the common hepatic and common bile ducts .6-Avoidance of the necrotizing effect of bile on the C.B.D.Biliary leakage may be due to :-Slipped cystic duct ligature .-Early withdrawal or displacement of Ttube .-Unrecognized severence of an accessory hepatic ducts .7- The surgeon must be familiar with congenital anomalies of blood vessels and ducts of the extrahepatic biliary apparatus . Blind grab to arrest haemorrhage occuring from the cystic artery , an anomalous cystic artery or right hepatic artery is one of the most COII1111011 causes of injury to the C.B.D. The diagnostic evaluation of patients with stricture C.B.D. should include a comprehensive history and physical examination which usually lead to a correct diagnosis .Abdominal examination is also importnt. A detailed informative history may be in some patients more important than most elaborate investigations .A

palpable gallbladder in the presence of progressively deepening jaundice points to a malignant aetiology . A tender gallbladder with a positive Murphy’s sign and intermittent jaundice points to choledocho-lithiasis . A palpable pancreatic mass in the epigastrium nearly always signifies surgical incurability .Biochemical investigations are the mainstays in the diagnosis of jaundice . Absence of faecal and urinary urobilinogen persistently for a long period usually points to a malignant stricture , while fluctuating level is seen in choledocholithiasis .Serum bilirubin level is markedly higher in malignant stricture than in calcular obstruction .Recently a non invasive techniques of investigations has been developed .By ultraoonography and C.T the diagnosis of cholostatiojaundice can be very accurately achieved on observing dilatation of the intrahepatic and/or the extrahepatic portion of the biliary tract . Pancreatic tumors , dilated biliary radicles , dilated splenic and portal veins could be easily andaccurately delineatedThe nature , level and cause of obstruction could be demonstrated using either P.T.C. or E.R.C.P. . Both P.T.C. and E.R.C.P. provide valuable preoperative information in planning the operation and they eliminate time-consuming intraoperative manipulations like cholangiography and pancreatography . Also P.T.C. can be used as the main method of temporary or permonent biliary drainge in poor risk patients . All patients requires an intensive course of preoperat-ive treatment , correction of vitamin K deficiency , anaemia malnutrition , water and electrolyte imbalance , is highly indicated in those patients . Also antibiotic therapy is indicated if cholangitis is present . The most propitious time to obtain a satisfactory result or permanent cure is at the first time at repair , more espi-cally when the proximal portion of the duct is of sizeable proportions in length and caliber , and when cholangitis and pericholedochitis are minimal , on the other hand the progno-sis is poor with intrahepatic and hilar strictures because of the difficulty of access and also in obtaining a satisfactory. Muconato mucosa anastomosis .It is said that the final result is goverened largely by the position , length , calibre , and quality of the proximal portion of the duct and also by the number of previous attempts to correction . There is no one operation can be employed for all cases , and each case must be considered individually . The type of repair used for treatment of C.B.D. strict-ures can be summarised as follows :-1-Repair of low C.B.D. strictures :-A) Biliary intestinal anastomosis :1-Choledochoduodenostomy .2-Choledochojejunostomy .3-Cholecysto-anastomosis if the gallbladder is present .B) Correction of stenosis atithe level of sphincter of Oddi :-1-Sphincteroplasty .2-Sphincterotomy .C) Dilatation of the stricture .2- Repair of high C.B.D. strictures :--End-to-end anastomosis .-Plastic repair .- Dragstedt’s repair .3- Biliary intestinal anastomosis for strictures extending to the common hepatic duct :--Hepaticoduodenostomy .- Hepaticoduodenostomy with partial gastric resection .-Hepaticojejunostomy (Rouxeny anastomosis) .4- Biliary intestinal anastomosis for strictures extendingto the hilus-Hepaticojejunostomy (Rouxeny) with mucosal graft ,technique .5-Biliary intestinal anastomosis for strictures extending to the intrahepatic ducts :-- The longmire operation .6-Biliary draingePercutaneous transhepaticbiliary drainge .