modern trends in managment of biliary calculi

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Gallstone disease is one of the most common causes ofsurgical manipulation of the gallbladder and bile ducts.Biliary calculi are formed out of the constituents of thebile. The majority are composed of a mixture of cholesterolcrystals and bile pigment.The gallbladder plays an important role in the formationof gallstones. and removal of the gallbladder cures the tendencyto form further stones is most instances.from 40 to 60 percent of all persons with gallstones areasymptomatic. The trend now is to observe such patients andnot to recommend surgery. Depending on the severity of symptoms.the number and size of gallstones. function of thegallbladder. the surgeon in consultation may recommend cholecystectomywith or without bile duct exploration. cholecystostomy.oral bile acid therapy or one of the modern ways ofmanagement of biliary calculi.Diagnostic methods of the biliary system have changedconsiderably in the last few years. the greatest advanceshave been in the development of completely new moQalities.Ultrasonography computed tomography. isotope imagining andmagnetic resonance imaging are in the forefront. However.even in the traditional procedures such as plain film radiographyand oral chlecystography. better understanding hasresulted in more reasonable and efficient utilization.160With new nonsurgical forms of gallstone therapy. quantitativeassessment of gallstone size and number as well asgallstone composition prediction have assumed increased diagnosticsignificance.The past 20 years have witnessed major changes in themanagement of gallstone disease. Much progress has been madein treating selected patients With cholesterol gallstones bymeans of oral dissolution. Chenodeoxy cholic acid and urosodeoxycholic acid feeding led to biliary cholesterol desaturationand stone dissolution.Extracorporeal shock wave lithotripsy uses high energyshock waves to fragment stones. to create stone fragmentssmall enough to pass spontaneously into the duodenum and todisrupt noncholesterol stone layers. thus increasing the surfacearea to volume relationship and enhancing the successrate of oral bile acid therapy. Many factors influence gallstonefragmentation With extracorporeal shock-wave lithotripsyremain to be evaluated.Various endoscopic methods of treatment of gallstoneshave been proposed. Endoscopic sphincterotomy is a safe andeffective method of managing common bile duct calculi.’A variety of percutaneous options are proving to beeffective for the treatment of gallstones. Gallstones can beextracted using baskets or forceps -through’ percutaneouscholecystostomy in case of gallbladder stones and throughT tube tract or percutaneous transhepatic approach. With the161use of balloon catheter. dilatation of the sphincter of Oddiand pushing the stone into the

duodenum can be accomplished.Dissolution of biliary calculi using topical solventsthrough percutaneous cholecystostomy or percutaneous. transhepaticaccess to the bile duct stones can be also performed.Contact fragmentation of stones (ultrasonic. electrohydraulic.laser and mechanical lithotripsy offers uniqueadvantages over some of the current methods.The limitation which is common to all these newer formsof treatment is the high recurrence rate even with maintenanceoral bile acid therapy. It is evident that even ifthese treatment methods prove successful. removal of thegallbladder will still be the treatment of choice in a majorityof instances.Cholecystectomy now can be achieved using laparoscope aswell as direct contact laser. Chemical destruction of thegallbladder through percutaneous access was described. It ledto complete obliteration of the gallbladder within 12-16weeks (medical cholecystectomy).There have been many favorable reports on the use ofcholedochoscopy for reducing the incidence of retained stonesafter common duct exploration.Only time and prospective clinical trials will determinethe role of these modern trends in the management of biliarycalculi.