

Problems of Choledocholithiasis Surgery

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Gallstone disease is a common and frequently occurring disease in human, and it is the main disease among the digestive system diseases. The incidence of gallstone disease is about 5%-22%, and common bile duct stones accounts for 8%-20% [1,2]. There have been different approaches to the treatment of choledocholithiasis at different times. Until the 80s of the last centuries, the main method of management of choledocholithiasis was open surgery, extraction of stones from the choledochus, drainage of the choledochus with a T-tube or choledochoduodenostomy [3,4]. But already in the late 70s there were reports of endoscopic management of choledocholithiasis [5,6]. Later, during the 80s, endoscopic management was used more and more often [7,8]. Such management has already begun to be called routine [9]. However, even then there were reports of complications of such procedure [10,11].

In the 90s, laparoscopic surgery began to be used to treat choledocholithiasis. Laparoscopic surgery was combined with endoscopic extraction of stones from the choledochus [12,13]. The main discussion was about the sequence of operations - what should be done first, endoscopic stone extraction or laparoscopic cholecystectomy. In the end, a well-known procedure was determined - first endoscopic extraction, then laparoscopic surgery [1,2].

The use of endoscopic stone extraction has caused other problems that result from injury of the sphincter of Oddi (dysfunction of the sphincter of Oddi, cholangitis, pancreatitis, etc) [14]. Such problems of injury were mentioned even in the

era of open surgery [15]. Later, when the number of endoscopic lithoextractions increased, the number of negative consequences of sphincter of Oddi injury also increased. This has forced a review of approaches to the management of choledocholithiasis.

Currently, there are more and more reports of better results of management of choledocholithiasis using laparoscopic surgery, choledochoscopy, laparoscopic extraction of stones from the choledochus without injury to the sphincter of Oddi [16,17]. However, there is still no final opinion about the effectiveness of such management. The technical complexity and high cost of such surgery are also noted [17,18]. At the same time, in some cases (large stones in the choledochus, failure of endoscopic extraction, failure of laparoscopic surgery), open surgery for choledocholithiasis is used [1,19]. Some even suggest open surgery for choledocholithiasis as the main method of surgery [20]. So, the problem of choledocholithiasis surgery remains unsolved to the end.

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