

Table 5-1

Factors Increasing the Risk of Post-Endoscopic Retrograde Cholangiopancreatography Pancreatitis

Choosing the Wrong Patient: Patient-Related Factors

Young age, female gender, suspected sphincter of Oddi dysfunction, recurrent pancreatitis, prior history of post-ERCP pancreatitis, patients with normal bilirubin.

Choosing the Wrong Procedure: Procedure-Related Factors

Pancreatic duct injection, difficult cannulation, pancreatic sphincterotomy, pre-cut access, and balloon dilatation.

Choosing the Wrong Endoscopist: Operator/Technical-Related Factors

Although a high-volume endoscopist should intuitively have lower rates, studies in general do not show this to be true. However, trainee (fellows) participation has been shown to be a significant risk factor for the development of post-ERCP pancreatitis.

pancreatitis, and technical factors, including number of pancreatic duct injections, minor papilla SOD, operator experience, and involvement of a trainee/fellow have all been shown to increase the risk of post-ERCP pancreatitis.

The patient who is most at risk of developing post-ERCP pancreatitis is a female with suspected choledocholithiasis and a normal bilirubin, who undergoes a sphincterotomy and no stone is found or who is suspected of having SOD and undergoes biliary and pancreatic manometry. In this patient population, more than one-quarter or one-third of patients develop post-ERCP pancreatitis, respectively. MRCP and EUS, which do not cause pancreatitis, can provide useful information (perhaps as accurate as ERCP) in many of these cases and are preferred modalities in the initial evaluation of ruling out choledocholithiasis.

Multiple medications have been studied to prevent post-ERCP pancreatitis, including nifedipine, nitroglycerin, nonsteroidal anti-inflammatory drugs (NSAIDs), steroids, somatostatin, octreotide, etc. Although there has been great interest in developing medications that can prevent post-ERCP pancreatitis, studies have failed to identify a medication worthy of widespread use.

Pancreatic stent placement clearly decreases the risk of post-ERCP pancreatitis in high-risk patients (Figure 5-1). Placement of pancreatic duct stents has become a standard practice for patients who are thought to be at risk for pancreatitis after the procedure. Pancreatic duct stent placement is effective presumably by preventing cannulation-induced edema that can cause pancreatic duct obstruction. Pancreatic sphincter hypertension is believed to be an important causative factor in post-ERCP pancreatitis and may explain the high risk of pancreatitis in patients with SOD. There is prolonged alleviation of ductal obstruction when pancreatic stents are placed. Typically, 3 to 5 French unflanged pancreatic stents are used in the following settings: SOD, difficult cannulation, biliary orifice balloon dilatation, and pre-cut sphincterotomy. Thirteen trials—6 prospective randomized controlled trials and 7 case control studies—have been published evaluating the role of pancreatic