

Chapter 1

ACUTE PANCREATITIS

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INTRODUCTION

Acute pancreatitis is an inflammation of the pancreas that occurs suddenly. It is a significant clinical problem with a rising incidence and high rates of morbidity and mortality. The pancreas is an organ located behind the stomach in the upper abdomen. It has two primary functions: the exocrine production of digestive enzymes and the endocrine production of hormones such as insulin and glucagon.

Etiology of acute pancreatitis

There are numerous causes that can result in acute pancreatitis. Recent publications disclose a revised understanding of the etiology of acute pancreatitis. Gallstones and alcohol consumption remain the two most common causes of acute pancreatitis. By unleashing pancreatic enzymes, gallstones, particularly those that obstruct the common bile duct, can induce pancreatic inflammation. In contrast, excessive alcohol consumption damages pancreatic tissue directly, resulting in severe pancreatitis. Recent studies have also highlighted the significance of metabolic variables, such as obesity and dyslipidemia, in the development of acute pancreatitis. Gallstones (including microlithiasis) account for between 40 and 70 percent of cases of acute pancreatitis. However, only 3% to 7% of gallstone patients develop pancreatitis. The mechanism by which gallstone passage causes pancreatitis is uncertain. Reflux of bile into the pancreatic duct due to transient obstruction of the ampulla during passage of gallstones; or obstruction at the ampulla secondary to stone(s) or edema resulting from the passage of a stone have been proposed as possible initiating events in gallstone pancreatitis. Cholecystectomy and the removal of stones from the common bile

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to mortality. The formation of pancreatic pseudocysts and pancreatic duct strictures can also result in recurrent attacks of acute pancreatitis. In contrast, patients with modest acute pancreatitis have a favorable prognosis and no long-term complications. Immediate recognition and management of complications, aggressive fluid resuscitation, and nutritional support are crucial for improving the prognosis of patients with acute pancreatitis. Additionally, thorough monitoring and follow-up are required to detect and treat any long-term complications. In conclusion, the prognosis for acute pancreatitis is highly variable, with the presence of complications and the severity of the disease serving as significant predictors of outcomes. To enhance outcomes for patients with acute pancreatitis, early recognition and aggressive management of complications are essential.

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