ERCP in Patient with Situs Inversus Totalis

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Introduction

Situs inversus (SI) is a congenital anomaly resulting in transposition of thoracic and abdominal organs.

This case details a patient found to have situs inversus totalis (SIT) incidentally while being evaluated for abdominal pain and ultimately requiring ERCP for choledocholithiasis.

Case Details

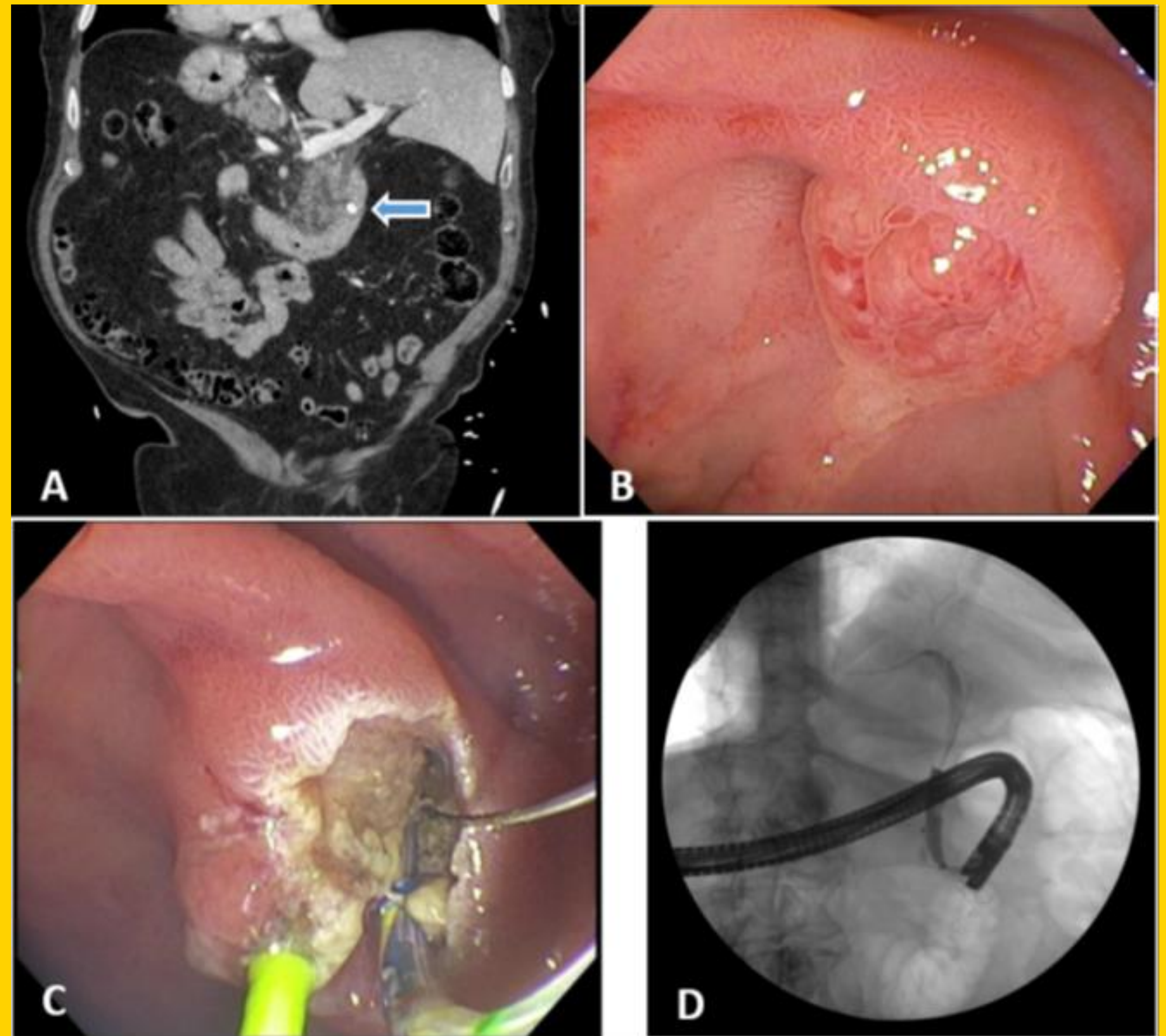
89-year-old male presented to the emergency department with a history of progressive epigastric abdominal pain for one month associated with nausea and non-bloody, non-bilious vomiting.

His lipase was elevated. CT abdomen showed prominent pancreatic duct consistent with an obstructing stone at the ampulla accompanied by inflammatory changes consistent with pancreatitis [Image A].

ERCP was indicated for choledocholithiasis and was subsequently performed. The side-viewing duodenoscope was advanced into the stomach, and a slight clockwise rotation of the scope was needed to advance towards the antrum, subsequently the scope was advanced in the long position into the first and second part of the duodenum and maintained in the long position. The major papilla was visualized in the upper right quadrant of the screen [Image B] and noted to be bulging, and deep biliary cannulation was made difficult due to anatomical variation and bulging papilla.

A pancreatic duct stent was placed first to aid in biliary cannulation and subsequently biliary cannulation was achieved with biliary sphincterotomy and balloon sweep performed [Image C shows the orientation of CBD to the right of the pancreatic duct]. Clearance of the common bile duct was achieved [Image D].

Patient had successful stent placement followed by cholecystectomy.



Discussion

SI is found in approximately 1 in 10,000 people which can obscure the diagnosis of abdominal pathology.

In our case SIT was noted on CT along with the culprit stone. In such patients careful planning to minimize adverse events and maximize success is essential.