

Correct Answer: Ruptured pancreaticoduodenal artery aneurysm

Discussion

True aneurysms of the pancreaticoduodenal artery (PDA) are rare, with a reported incidence of about 2% among all visceral artery aneurysms. Pancreaticoduodenal artery aneurysms can be secondary to several factors, including trauma, pancreatitis, infection, congenital anomalies, atherosclerotic vascular disease, and connective tissue disorders. Celiac artery stenosis or occlusion due to intraluminal pathology is known to be one of the main factors for increased collateral circulation and aneurysms, which account for about 50-60% of all PDA aneurysms.

The clinical presentation of PDA aneurysms is nonspecific, ranging from an incidental finding to shock and fatal hemorrhage. The most common initial presentation of a PDA aneurysm is abdominal pain. Many patients present with sudden abdominal pain occurring within the past 24 hours; these symptoms are likely due to the aneurysm rupture. Other symptoms can include vomiting, hypotension, pulsatile mass, jaundice, or gastric outlet compression. The deep retroperitoneal location and the rarity of this vascular pathology make the clinical diagnosis rather difficult, even when abdominal masses are found on physical examination. In this regard, the widespread availability of CT scans has increased the capacity to diagnose non-ruptured or ruptured PDA aneurysms. Treatment for asymptomatic and ruptured aneurysms includes endovascular and open surgical repairs.

References

Bageacu et al (2006) True aneurysms of the pancreaticoduodenal artery: successful non-operative management. *Surgery* 139:608-16