

SMA first approach Pancreaticoduodenectomy for cancer – should it be standard approach?

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ABSTRACT

Background: pancreaticoduodenectomy (PD) has become the standard treatment for cancer of head of pancreas and periampullary malignancies. Recently superior mesenteric artery (SMA) first approach has shown to have several advantages over the conventional superior mesenteric vein (SMV) first approach. We present our initial experience with SMA first approach for PD.

Methods: Thirteen patients undergoing SMA first PD during year 2014-2015 (1 year) were prospectively studied. A posterior approach with “hanging maneuver” was used to identify SMA first and the resectability was confirmed. Inferior pancreaticoduodenal artery (IPDA) was ligated before the division of pancreatic neck. Duct to mucosa pancreaticojejunostomy followed by hepaticojejunostomy and gastrojejunostomy was performed.

Results: patients with mean age of 53 years presented with abdominal pain and jaundice (100%). Tumors were of periampullary region in 10 cases and of head of pancreas in three cases. Two patients required partial SMV wall resection with tangential repair. Mean operating time, blood loss and postoperative stay was 304 minutes, 380 ml and 14 days, respectively. Replaced/ aberrant right hepatic artery from SMA was observed in 38% cases. Mean number of dissected nodes was 16. R0 resection was achieved in 100% cases. There was one postoperative mortality (7.7%) and minor complications were noted in 46% cases.

Conclusion: SMA first PD helps to properly identify and control anomalous or accessory right hepatic artery arising from SMA, minimizes intraoperative bleeding due to proper control of IPDA, facilitates easier SMV/ PV resection and provides the best chance for achieving R0 resection.

Key Words: pancreaticoduodenectomy; superior mesenteric artery; hanging maneuver.