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1. Extent of resection in distal pancreatectomy for pancreatic body cancer: Special reference to LN dissection and retroperitoneal margin
2) Practice: Panel discussion

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2. Surgical drain after pancreatectomy
1) Evidence

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The placement of closed suction drains after surgery has been a common practice. However, there is an debate regarding their benefits and risks in pancreatic surgery. Consequently, the use of surgical drains is mainly characterised by tradition and personal experience and the attitude of the surgeon rather than by empirical data. Several randomized controlled trials, systematic reviews and meta-analyses have demonstrated no benefit or even an increased risk of postoperative complications of drains after various gastrointestinal procedures including hepatectomy, appendectomy, cholecystectomy, colectomy and gastrectomy.

Two ideas are behind the decision to place drains after pancreatic surgery. Firstly, there is a need for a therapeutic or prophylactic strategy to remove intraabdominal fluid or contamination (seroma, haematoma, bile, pancreatic juice) in order to prevent or control postoperative complications. Secondly, they may also serve as a diagnostic tool for the monitoring and early identification of any leakage or hemorrhage. However, intra-abdominal drains have been associated with an increased risk of ascending wound infections, delayed gastrointestinal passage, abdominal pain, decreased pulmonary function and prolonged hospital stay. A number of clinical studies have investigated the role of drains in pancreatic surgery indicating no benefit or even a higher risk of developing intra-abdominal complications increasing with the time of its removal. These studies, however, do not provide sufficient evidence to either abandon drains after pancreatic surgery or to define an optimal time for their removal.

Prospective randomized study conducted at the

Memorial Sloan- Kettering Cancer Center (MSKCC) enrolled 179 patients with periampullary tumors requiring pancreatic resection. Conlon et al. found no difference between the rates of major or total complications between the drain and no-drain groups. The results have not shown any benefit in decreasing pancreatic fistula, total complications, length of hospital stay, or readmission rates. Frequency of complications was significantly higher in patients receiving routine drainage. This was recently supported by retrospective study of 709 pancreatic resections from the Emory University. Mehta et al. found that intraoperatively placed drains were an independent risk factor for postoperative grade B or C PF. Of note, drains were more frequently placed in patients who had increased intraoperative blood loss and transfusions, which may reflect selection bias for drain placement. Notably, there was also an equivalent rate of secondary drain placement, reoperation, and readmission. These differences highlight the difficulty of analyzing PF and complication rates retrospectively; however, these two recent studies from high-volume institutions demonstrate that at least selective drainage may be a safe alternative to routine prophylactic drainage.

Many studies have analyzed outcomes in patients after pancreatic resection to determine the risk factors for PF and other complications. Although not significant in every study, a small pancreatic duct diameter, soft pancreatic texture, increasedintraoperative blood loss, prolonged operative time, and extended resection or lymphadenectomy were determined to be risk factors for PF in multiple studies. Molinari et al. also investigated the use of drain amylase in predicting clinically relevant PF after pancreatic resection in 137 patients. The authors observed PF in 19.7% of pancreatic resections and found that an amylase drain value >5000 on POD 1 was a significant predictor of PF in a univariate analysis (P<0.001). In conclusion, the amylase value in dirains in POD1 >5000 U/L is the only significant predictive factor of PF development.

Some studies have evaluated the appropriate timing for removal of intraoperatively placed drains during pancreatic resections. In a prospective cohort study by Kawai et al. intraoperatively placed drains were removed on POD 4 or POD 8. They found a significantly reduced rate of intra-abdominal infections and PF in the early drain removal cohort. This practice is further supported by a prospective randomized trial by Bassi et al. who compared early (POD 3) versus late (POD>5) drain removal in patients with drain amylase <5000 U/L on POD 1. They found that early drain removal decreased the rate of PF, abdominal complications, and pulmonary complications.

In conclusion, the current literature supports a selective drain insertion and early drain removal in low-risk patients after pancreatic resection.

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2. Surgical drain after pancreatectomy
2) Practice: Panel discussion

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Special Lecture 1

Updates of autoimmune pancreatitis

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Autoimmune pancreatitis (AIP) is a unique type of chronic pancreatitis in which pathogenesis involves autoimmune mechanism. AIP awareness is relevant to surgeons. Not only pancreatologists, but also surgeons should know about AIP because the most frequent acute presentation of AIP is obstructive jaundice and/or a pancreatic mass/enlargement. Diagnostic uncertainty due to its mimicry of pancreatobiliary malignancies has often led to pancreatic resection for AIP.

The increasing number of reported AIP cases had resulted in identification of a number of clinical, serologic, and histopathologic features that distinguish the two subtypes of the disease. Type 1 and type 2 AIP correspond roughly to lymphoplasmacytic sclerosing pancreatitis and idiopathic duct-centric chronic pancreatitis, respectively. There is a difference in the prevalence of two subtypes. Type 2 AIP appears to be relatively common in the US and Europe but rare in East Asia. Type 1 AIP is regarded as the pancreatic manifestation of systemic IgG4-related disease (IgG4-RD), whereas type 2 AIP is not. Compared to patients with type 2 AIP, patients with type 1 AIP are older, have elevated serum IgG4 levels, and show a strong association with sclerosing cholangitis, sialadenitis, and retroperitoneal fibrosis. In contrast, patients with type 2 AIP are younger, have normal serum IgG4 levels, and show an association with inflammatory bowel disease.

IgG4-RD is a newly named fibroinflammatory condition characterized by tumefactive lesions that contain dense lymphoplasmacytic infiltrates rich in