In in 1935, the modern pd, has evolved

Business, Accounting

In 2013, pancreatic cancer was the 10th most commonly diagnosed cancer inAustralia, with an incidence of 2, 865 people in that year, commanding a costof up to $1, 676, 300 per person to the healthcare system (1, 2). Carcinoma ofthe pancreas and periampullary region continues to be associated with a verypoor prognosis. This is highlighted by the close parallel between incidenceand mortality (3). Individuals diagnosed with pancreatic cancer have anoverall five year survival of <7% (2, 4). The poor prognosis is partly attributedto the insidious disease progression where patients often remainasymptomatic until it reaches an advanced stage causing delayed diagnosis(3).

The majority of pancreatic neoplasms comprise of pancreatic ductaladenocarcinomas, accounting for up to 85-90% of all pancreatic neoplasms(3). Approximately 80% of cases occur in patients 60-80 years with rare casesbelow the age of 40 years (2, 3). The incidence of pancreatic carcinoma isslightly higher in men with a male/female ratio of 1. 6 (2). Although the cause of pancreatic cancer remains unclear, the most notableassociation is related to tobacco smoking (3). It has been reported to carry upto a three-fold relative risk that linearly increases with the number ofpack-years smoked (3).

Together with other reported associations such aschronic pancreatitis and diabetes mellitus, it accounts for approximatelyone-quarter to one-third of cases (3). In addition, a number of hereditary–1–cancer syndromes, hereditary pancreatitis, Peutz-Jeghers syndrome andcystic fibrosis have also been identified as risk factors (5, 6). The majority of pancreatic ductal adenocarcinomas are found in the head ofthe gland and the remainder occur

in the body and/or tail (3). Unfortunately, by the time of resection, the carcinoma has often spread out of the pancreas(3). Pancreatic cancer is usually aggressive, with perineural, vascular andlymphatic spread with early distant metastases into nearby organs orperitoneum (3). Due to the advanced nature of pancreatic carcinoma, themethod of surgical resection is usually a significant undertaking.

Surgical resection remains the only potentially curative treatment of pancreasand periampullary cancer. Following surgical resection and adjuvant therapyfor pancreatic cancer, median survival has been reported to increase to anestimated 22 months, with a 5-year survival of 15-25% (4). For malignanciesof the head of the pancreas and periampullary region, pancreaticoduodenectomy (PD) is the procedure of choice. Since the firstsuccessful procedure by Whipple and Parsons in 1935, the modern PD, hasevolved into a complex, high-risk one stage surgical procedure involving theremoval of the head of the pancreas, the duodenum including the duodenalpapilla or ampulla of vater, the proximal jejunum, common bile duct, gallbladder and a partial gastrectomy (Figure 1-1). Variations of theconventional procedure include pylorus preserving and subtotal stomachpreserving methods.

Subsequent reconstruction involves the formation ofboth a pancreaticojejunostomy and a hepaticojejunostomy. Historically thiswas carried out as an open procedure however, of late, there has been anincreasing move to more minimally invasive techniques.