Is a nihilistic approach justifiable for pancreatic cancer?

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Abstract

Pancreatic ductal adenocarcinoma is the 13th commonest cancer but the fourth most common cause of cancer-related death. The persistent dilemma in the management of pancreatic cancer is not helped by the preconceived knowledge of its poor prognosis. We debate if the nihilistic approach to pancreatic cancer management is justifiable.

Keywords: Pancreas; Cancer; Management

Introduction

Pancreatic ductal adenocarcinoma is the 13th commonest cancer but the fourth most common cause of cancer-related death [1]. The prognosis for patients with this disease is dismal. The overall worldwide incidence has increased over the past few decades such that over 265,000 cases are diagnosed annually and it is projected that it will be the leading cause of cancer-related deaths in the USA by 2050 [2]. The dismal overall median survival of 4.4 months and a five-year survival rate of 15-20% is primarily related deaths in the USA by 2050 [2]. The dismal overall median survival is 12 months, and a five-year survival rate is 15-20% is primarily related deaths in the USA by 2050 [2].

The arguments

Although surgical resection is the most important factor that determines survival, the arguments for the nihilistic approach are that PC usually has an insidious presentation and physical signs of metastatic spread are commonly present at initial consultation. It is a disease of elderly patients and 50% are >70 years, many are unfit, weak, emaciated and suffer from other concomitant medical conditions [12]. Endoscopic bypass is all that can be offered [10-12]. A realist argument is that bypass procedures are all that can be offered in the vast majority. The palliation of biliary and gastric outlet obstruction is by surgical bypass (hepaticojejunostomy or gastrojejunostomy), if endoscopic/Percutaneous methods fail and patient is fit for surgery. In some cases, resectability can only be defined intra-operatively, however. An unsuccessful resection for a carcinoma can result in a high mortality, a very high morbidity and an extremely costly period of treatment for the patient [10,11]. The arguments for the activist are that PC is increasing in incidence and although it is considered a disease of the elderly more than 40% of men and 35% of women present under the age of 70 years as in this case [2]. The use of modern diagnostic imaging techniques or protein markers especially glypican-1(PC1) can pick up tumours at an early stage [9,13]. Even though the chances of cure are < 1%, the only hope for cure of early PC is by surgical resection [14]. After a potentially curative R0 (no involved margins) resection in early stage [9,13].
26% [15]. The resection ameliorates the diabetes in those who had diabetes preoperatively (new-onset) but not patients with long standing diabetes [6,16]. This provides further evidence that PC induces glucose intolerance and recent-onset diabetes may not only define a high risk group for PC but a marker of early, asymptomatic cancer [17]. Moreover, several studies have demonstrated the prevalence of diabetes in early stage PC which would favor the argument for the activist’s resection approach [18,19]. As nearly half the patients with early stage, resectable tumors have diabetes, PC-associated diabetes is not a contraindication for the surgical resection approach [20,21]. The prompt diagnosis of type 3 DM (newly diagnosed diabetes mellitus) may allow detection of a tumour at a potentially curable stage.

Although widely viewed as a complex procedure associated with considerable perioperative morbidity and mortality, complete surgical removal of the pancreatic tumour is the most important factor that determines survival [10,11,14,15]. The operative mortality has fallen to 5% or less in experience hands [10,12]. The surgical procedure for tumour in head of pancreas is either a Whipple’s pancreaticoduodenectomy (PD) or pylorus-preserving pancreaticoduodenectomy (PPPD) or PD with en bloc vascular resection and reconstruction and for tumour in body/tail is either a distal pancreatectomy or a total pancreatectomy [10]. If we excluded all patients from consideration for surgery we may also exclude patients suffering from cancer of the distal common bile duct, the duodenal mucosa and ampulla of Vata with these tumours having a 5 year survival rate of 30%. A nihilistic approach is therefore not justified, as in many cases resectability can only be defined intra-operatively. The favorable prognostic features are negative resection margin, negative lymph nodes, well/moderately differentiated carcinoma, primary < 2 cm diameter and no perineural or lymphovascular invasion [10,13]. Neoadjuvant and adjuvant chemotherapy or chemoradiotherapy improves the chance of cure for early PC [24,25]. Screening for pancreatic cancer in high risk individuals including recent-onset diabetics especially with the novel protein markers holds promise with regards improving long-term survival.

In conclusion, the persistent dilemma in the management of pancreatic cancer is not helped by the preconceived knowledge of its poor prognosis. A nihilistic approach is not justified.

Authors’ contributions

EPW was the main researcher and carried out literature search, MS assisted with the literature search.

References


