

Pancreatic adenocarcinoma is the fourth leading cause of cancer mortality with a 5-year survival approaching only 6% for all stages. Unfortunately, only 20% of pancreas cancers are amenable to surgery at the time of presentation because 50% are metastatic and 30% are locally advanced. Clearly, there is room for improvement in treating this lethal disease.

Given that 80% of patients with pancreas cancer present with advanced disease, one approach to improving survival is earlier detection. Unfortunately, most patients fail to be diagnosed until symptoms have developed which often portends a worse survival. The Identification of pre-cancerous lesions such as intraductal papillary mucinous neoplasm (IPMN) and Mucinous cystic neoplasms (MCN) is one example of early detection. In addition, several centers are currently investigating promising non-invasive screening methods to detect pre-cancerous or early pancreatic cancers.

For resectable tumors, advances in surgical approach over the past four decades have focused on reducing mortality to an acceptable 2% in most high volume centers. However, morbidity rates following pancreatectomy remain quite high. More recently, centers have successfully focused on reducing peri-operative morbidity via the introduction of minimally invasive approaches. It appears that reducing operative morbidity improves the timely use of much needed adjuvant therapy for pancreas cancer, which may eventually translate into an improved survival.

Until recently however, systemic chemotherapy was extremely ineffective. Chemotherapy for pancreas cancer has dramatically changed over the past decade and now is quite effective and better tolerated. As a result of current chemotherapy regimens, more patients with locally advanced tumors are now undergoing conversion therapy and are surgical candidates. In addition, patients with metastatic disease are living twice as long as they did under previous regimens. Current therapeutic regimens now focus on individual tumor biology and genetics with the goal of personalized cancer therapy.

The future is difficult to predict but there is great promise in the treatment of pancreas cancer. Focusing on early detection, improved surgical technique, drug development, and personalized care based on tumor genetics all hold great promise.

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