

Pancreatic Cancer: Review Questions

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QUESTIONS

Choose the single best answer for each question.

- 1. Approximately how many cases of pancreatic adenocarcinoma occur in the United States annually?**
 - A) 30,000
 - B) 50,000
 - C) 75,000
 - D) 90,000
 - E) 150,000
- 2. Which of the following statements regarding pancreatic adenocarcinoma is INCORRECT?**
 - A) Survival beyond 2 years following diagnosis is uncommon
 - B) The majority of affected patients have surgically resectable tumors
 - C) The majority of tumors arise in the head of the pancreas
 - D) The median age of affected patients is 60 to 70 years
 - E) The most frequent presentation of the disease is painless obstructive jaundice
- 3. A previously healthy 65-year-old man with painless obstructive jaundice visits his physician. As part of his work-up, the patient undergoes a computed tomographic (CT) scan of the abdomen. Results show that the distal common bile duct and pancreatic ducts are dilated; a discrete 2.5-cm mass is seen in the head of the gland, along with a 3-cm segment of involved portal vein. No evidence of metastases is observed. Based on current staging guidelines from the American Joint Committee on Cancer, which of the following clinical stages best describes this patient's cancer?**
 - A) Stage I
 - B) Stage II
 - C) Stage III
 - D) Stage IVA
 - E) Stage IVB
- 4. Which of the following procedures provides the most accurate prelaparotomy staging of patients with pancreatic cancer?**
 - A) Abdominal ultrasonography
 - B) CT scan and laparoscopy
 - C) CT scan and magnetic resonance imaging (MRI)
 - D) Endoscopic retrograde cholangiopancreatography (ERCP) and CT scan
 - E) ERCP and MRI
- 5. Which of the following is the recommended drug or combination of drugs for treatment of patients with locally advanced or metastatic unresectable pancreatic adenocarcinoma?**
 - A) 5-Fluorouracil
 - B) 5-Fluorouracil and leucovorin
 - C) 5-Fluorouracil and mitomycin
 - D) Gemcitabine
 - E) Gemcitabine and leucovorin

(turn page for answers)

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EXPLANATION OF ANSWERS

1. **(A) 30,000.** According to the American Cancer Society, 29,200 new cases of pancreatic cancer will be diagnosed this year. The gender distribution for this disease is almost equal, and the 5-year survival rate remains below 5%.
2. **(B) The majority of affected patients have surgically resectable tumors.** On the contrary, most patients with pancreatic adenocarcinoma have unresectable tumors. In the United States, it is estimated that as many as 80% of patients initially diagnosed with pancreatic cancer will already have locally advanced or metastatic disease. The majority of these patients are in their 60s and 70s, present with obstructive jaundice, and have tumors in the head of the gland. Several studies have documented the lack of survival benefit for patients undergoing operative resection with disease extending beyond the pancreas into contiguous organs or to vascular structures without frank metastases. Unfortunately, most patients have tumors that extend beyond the pancreas or invade adjacent structures. Even following pancreatic resection, patients with pancreatic adenocarcinoma have less than a 10% chance for a 5-year survival. Survival beyond 2 years following diagnosis is uncommon.
3. **(D) Stage IVA.** In the clinical scenario described, a tumor size of 2.5 cm is clinically staged as a T3 tumor. Pancreatic and bile duct dilatation is not included in the staging criteria for this disease. Vascular involvement, such as that of the portal vein in this case, is clinically staged as a T4 tumor. Although no information is provided about regional node involvement, T4 disease can be staged as either IVA or IVB. In the absence of demonstrated metastases (stage IVB), this patient's cancer is best described as stage IVA.
4. **(B) CT scan and laparoscopy.** It is generally accepted that computed tomographic (CT) scans have an excellent predictive capacity to identify unresectable pancreatic cancer; however, resectability may not be determined in up to 20% of patients. CT scans fail to detect metastatic tumors that are smaller than 5 mm in diameter, such as small-volume peritoneal and hepatic metastases. Accurate staging is the cornerstone of treatment decisions for patients with pancreatic cancer; thus, diagnostic laparoscopy is indicated because it enables visual examination of the liver and the peritoneum and provides the capacity to biopsy potential extrapancreatic disease.
5. **(D) Gemcitabine.** Gemcitabine alone is the standard chemotherapeutic agent for patients with locally advanced or metastatic pancreatic cancer. With this therapy, the incidence of drug toxicities is diminished, and patients report greater improvement in quality of life than that which occurred with previous regimens. Additionally, early trials have demonstrated a modest but significant survival advantage for patients treated with gemcitabine.

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