

Clinical Recommendations

Pancreatic cancer: ESMO Clinical Recommendations for diagnosis, treatment and follow-up

R. Herrmann¹ & S. Jelic²

On behalf of the ESMO Guidelines Working Group*

¹Division of Oncology, Department of Internal Medicine, University Hospital of Basel, Basel, Switzerland; ²Internal Medicine Service, Institute of Oncology and Radiology, Belgrade, Serbia

incidence

The crude incidence and mortality of pancreatic cancer in the European Union is ~11/100 000/year. In ~5% of patients some genetic basis for the disease can be found.

diagnosis

Pathological diagnosis should be made according to the WHO classification from a biopsy or fine needle aspiration. Ductal adenocarcinomas constitute 95% of the epithelial tumors.

staging and risk assessment

Staging consists of complete history and physical examination, blood counts, liver enzymes, chest X-ray, imaging of the abdomen by sonography and CT scan or magnetic resonance, and possibly by endosonography.

Patients with pancreatic cancer may be staged according to the TNM system and can be grouped as shown in the table below.

However, the distinction of whether or not a tumor remains resectable is not well reflected in the TNM system, as demonstrated by the wide range of survival figures given for each stage.

Evaluation of resectability often requires surgery, preferably by staging laparoscopy, to exclude clinically occult intra-abdominal and lymph node metastases.

To be resectable, tumors must show no evidence of extrapancreatic disease or direct tumor extension to the celiac axis and superior mesenteric artery but evidence of non-obstructive superior mesenteric–portal vein confluence does not always preclude tumor resection.

Less than 20% of all patients have resectable disease.

treatment of resectable tumors

Complete surgical resection is the only potentially curative treatment available. However, 5-year overall survival is only 10–20%. Long-term survival in N+ tumors is rare.

Preoperative or postoperative chemotherapy with or without radiotherapy remains controversial.

treatment of locally advanced or metastatic disease

Optimal symptomatic treatment has a prime role in the management of metastatic disease. This may require stenting or bypass surgery for obstructive jaundice or gastric outlet obstruction.

The role of chemotherapy is limited. Gemcitabine has been associated with a small survival benefit compared with bolus 5-fluorouracil [II, B].

response evaluation

Objective response evaluation by the initial radiographic test may not be necessary for adequate patient management. Evaluation of response should be symptom driven.

follow-up

Due to the limited effectiveness of treatments follow-up after complete resection should be restricted to history and physical examination.

Stage	Primary tumor	Lymph nodes	Distant metastases	5-year survival (%)
Stage 0	Tis	N0	M0	–
Stage I	T1–2	N0	M0	5–35
Stage II	T3	N0	M0	2–15
Stage III	T1–3	N1	M0	2–15
Stage IVA	T4	Any N	M0	1–5
Stage IVB	Any T	Any N	M1	<1

*Correspondence to: ESMO Guidelines Working Group, ESMO Head Office, Via L. Taddei 4, CH-6962 Viganello-Lugano, Switzerland

Approved by the ESMO Guidelines Working Group: August 2003, last update December 2006.

Conflict of interest: Prof. Herrmann has reported no conflicts of interest.

note

Levels of evidence [I–V] and grades of recommendation [A–D] as used by the American Society of Clinical Oncology are given in square brackets. Statements without grading were considered justified standard clinical practice by the experts and the ESMO faculty.

literature

1. Burris HA, Moore MJ, Andersen J et al. Improvements in survival and clinical benefit with gemcitabine as first-line therapy for patients with advanced pancreatic cancer: a randomized trial. *J Clin Oncol* 1997; 15: 2403–2413.
2. John TG, Greig JD, Carter DC et al. Carcinoma of the pancreatic head and periampullary region. Tumor staging with laparoscopy and laparoscopic ultrasonography. *Ann Surg* 1995; 221: 156–164.
3. National Comprehensive Cancer Network: www.nccn.org (date last accessed 26 February 2005).
4. Klippenbühl JH, Jeekel J, Sahmoud T et al. Adjuvant radiotherapy and 5-fluorouracil after curative resection of cancer of the pancreas and periampullary region: phase III trial of the EORTC gastrointestinal tract cancer cooperative group. *Ann Surg* 1999; 230: 776–782.
5. Neoptolemos JP, Stocken DD, Friess H et al. A randomized trial of chemoradiotherapy and chemotherapy after resection of pancreatic cancer. *N Engl J Med* 2004; 350: 1200–1210.
6. Neoptolemos JP, Stocken DD, Dunn JA et al. Influence of resection margins on survival for patients with pancreatic cancer treated by adjuvant chemoradiation and/or chemotherapy in the ESPAC-1 randomized controlled trial. *Ann Surg* 2001; 234: 758–768.