

Meeting abstract

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## Outcome of pancreatic resection in elderly patients

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### Clinical background

The increasing aging of the Western population is obviously accomplished by an increasing number of older patients with cancer, including pancreatic cancer. Since surgical resection remains the treatment of choice for pancreatic and periampullary neoplasms, increasing number of elderly patients are being referred for pancreatic resection. Recently, some surgical experiences reported an acceptable morbidity rate and outcome in patients with advanced age. This retrospective study analyzes the effects of age on short-term and long-term outcome in a large series of patients who underwent resection for pancreatic or periampullary disease.

### Materials and methods

Data were collected on 317 consecutive patients who underwent pancreatic resection between 2000 and 2007, divided into two groups: group 1, patients under 75 years of age, and group 2, patients with 75 years of age or older. Patients underwent standardized preoperative assessment of general medical conditions, blood tests, tumor marker CA 19-9 determination, abdominal CT scan, and when needed, MRI or PET. Surgical technique included pylorus-preserving pancreaticoduodenectomy for tumors of the head of the pancreas and distal pancreatectomy for tumors located in the body or tail. Total pancreatectomy was reserved for microscopic invasion of the line of resection. For selected cases of benign or border-line tumors a limited resection was performed. The morbidity and mor-

tality rate included all complications or death after surgery until discharge from hospital. In patients with pancreatic cancer, age, stage, lymph node status, grading and radicality of resection were recorded as potentially prognostic factors. Statistical analysis was performed using the SPSS for Windows rel. 15.0. Patient overall survival and disease-free survival (DFS) were evaluated using the Kaplan-Meier method and compared with the Log-Rank test. Independent prognostic variables were examined with Cox regression analysis. Statistical significance was considered as  $p < 0.05$ .

### Results

There were 149 males and 168 females. Fifty-two patients were  $\geq 75$  years old (19 older than 80 years) and 265 were under 75 years of age. Clinicopathologic features of the two groups are detailed in Table 1. There were no significant differences regarding gender, type of operation, pathologic findings, morbidity and mortality rate between the two age groups. In pancreatic cancer patients ( $n = 156$ ) tumor's grading and radicality of resection were independent prognostic factors for disease-free survival, grading and tumor's stage were independent predictors for overall survival. Age did not influence disease-free or overall survival both in univariate and multivariate analysis.

### Conclusion

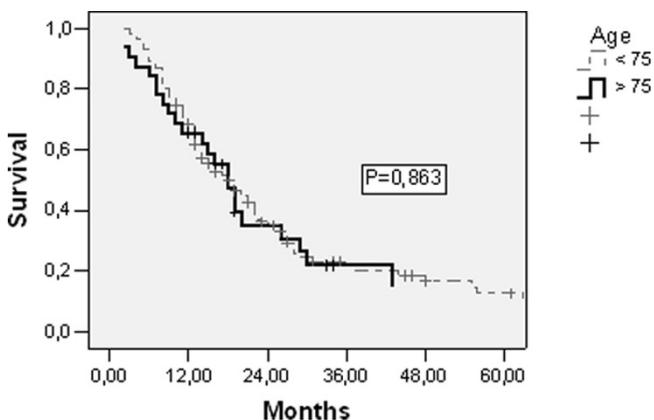
In accordance to other reports, the results of the present study strongly suggest that age should not be considered

Table 1:

	<75 yrs (n = 265)	>75 yrs (n = 52)
<b>Gender</b>		
Male	129	20
Female	136	32
<b>Pathology</b>		
Pancreas cancer	121	35
Periampullary cancer	24	2
Cystic tumor	39	6
Chronic pancreatitis	20	3
Endocrine tumor	48	2
Other	13	4
<b>Operation</b>		
Pancreaticoduodenectomy	141	35
Total pancreatectomy	5	2
Distal pancreatectomy	83	15
Central pancreatectomy	23	0
Duodenum-preserving head resection	13	0
<b>Operative morbidity</b>	81(30.5%)	17(32.6%)
<b>Operative mortality</b>	8(3.0%)	3(5.7%)

Clinicopathologic features of the two groups of patients

as a contraindication for major pancreatic resection. Post-operative morbidity and mortality were not statistically different in the two age groups. Similarly survival of patients of 75 years or older resected for pancreatic cancer is not substantially different from the survival expected in younger patients (Figure 1).



**Figure 1**  
Survival of patients with pancreatic cancer according to age.

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