

TREND IN PANCREATIC CANCER PROGNOSIS IN MURCIA - SPAIN

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Background

Pancreatic cancer incidence is increasing worldwide. Related to cancer prognosis, pancreatic cancer scores one of the worst, between 5% and 15% around the world. Pancreatic cancer survival in the southeastern of Spain has been analyzed with data from the Cancer Registry of Murcia Region in Spain.

Methods

- All incident cases of pancreatic cancer between 1990 and 2010 has been extracted from the population based cancer registry of Murcia.
- The morphology and topography of the tumor are coded in ICDO-3 and converted to ICD-10 for analysis. The code C25 (malignant neoplasm of pancreas) has been used to select cases.
- The base of diagnosis includes cases whose source of information is the Death Certificate Only (DCO). Information on vital status is obtained from the National Death Index, hospital discharges, medical records and health insurance database.
- Variables: date of incidence, age at diagnosis, sex, vital status and time of follow-up.
- Crude net survival and adjusted by age at 5 years of the diagnoses have been calculated.
- Survival was analyzed for two periods (1990-1999 and 2000-2010), by sex and age group.
- Net survival has been estimated using the Pohar-Perme method, with the cohort approach. The weights of the ICSS have been used to adjust for age. Software used STATA-V14.
- All survival estimators are presented as percentages with their 95% confidence interval (CI95%).

Results

- A total of 1924 patients with pancreatic cancer have been included after excluded 9% DCO (164 cases).
- Net survival at 5 years shows a value of 5.3% in 1990-1999 and 6.6% in 2000-2010. Net survival adjusted is higher in women than in men, 8.3% versus 6.7%.
- The highest net survival is observed in 15-44 years (21.1%) and the lowest in those over 74 (4%).
- The survival curve from diagnosis to 5 years shows a pronounced fall in the first year after diagnosis of 80% in absolute value.

Conclusion

Pancreatic cancer has a very unfavorable prognosis that has scarcely improved in the last two decades. It is essential to monitor the effects of new therapeutic strategies to check whether in long-term at population level improves survival.

Table 1. Observed and five-year net survival of patients diagnosed with pancreatic cancer by sex and time period in the Region of Murcia (1999-2010).

	Men		Women		Overall	
	Net survival	95% CI	Net survival	95% CI	Net survival	95% CI
Observed survival						
Period 1 (1990-1999)	4.8	2.8 - 7.4	4	2.1 - 6.8	4.4	3.0 - 6.2
Period 2 (2000-2010)	6.1	4.5 - 7.9	6.2	4.4 - 8.4	6.1	4.9 - 7.5
Whole period (1990-2010)	5.6	4.4 - 7.1	5.5	4.1 - 7.1	5.6	4.6 - 6.7
Net survival						
Period 1 (1990-1999)	5.7	3.0 - 8.4	4.9	2.1 - 7.6	5.3	3.4 - 7.2
Period 2 (2000-2010)	6.7	4.8 - 8.7	6.6	4.2 - 8.9	6.6	5.1 - 8.2
Whole period (1990-2010)	6.4	4.8 - 8.0	6	4.2 - 7.8	7.2	5.0 - 7.4
Adjusted net survival						
Period 1 1990-1999	5.9	3.3 - 8.5	6.8	3.3 - 10.2	6	3.9 - 8.1
Period 2 2000-2010	7.1	5.2 - 9.1	9.1	6.4 - 11.8	7.7	6.1 - 9.3
Whole period 1990-2010	6.7	5.1 - 8.3	8.3	6.1 - 10.5	7.2	5.9 - 8.5
Diff. by period (Period 2 - Period 1)						
Absolute ^a	1.2	-	2.3	-	1.7	-
Relative ^b (%)	20.3	-	33.8	-	28.3	-
Diff. Women-Men						
Absolute ^c	-	-	-	-	1.6	-
Relative ^d (%)	-	-	-	-	23.9	-

Table 2. Five-year net survival of patients diagnosed with pancreatic cancer by age group and period in the Region of Murcia (1999-2010).

Age group	Period 1 1990-1999		Period 2 2000-2010		Whole period 1990-2010	
	Net survival	95% CI	Net survival	95% CI	Net survival	95% CI
Overall						
15-44	21.2	4.1 - 38.4	21.1	11.2 - 31.1	21.1	12.4 - 29.9
45-54	7.3	0.0 - 14.7	15.4	9.1 - 21.7	13.4	8.2 - 18.6
55-64	2.4	0.0 - 4.8	10.6	6.6 - 14.6	7.6	4.9 - 10.4
65-74	6.9	3.2 - 10.7	3.1	1.3 - 4.9	4.4	2.7 - 6.1
≥75	3.8	0.7 - 6.8	3.5	1.3 - 5.7	3.6	1.7 - 5.4
Men						
15-44	14.5	0 - 30.7	18.1	6.5 - 29.8	17.2	7.3 - 27.0
45-54	7.4	0 - 16.1	12.6	5.5 - 19.7	11.3	5.4 - 17.1
55-64	2.3	0 - 5.1	8.2	3.8 - 12.6	6	3.0 - 9.0
65-74	9.7	3.8 - 15.5	4.6	1.7 - 7.4	6.3	3.5 - 9.0
≥75	2.3	0 - 5.9	3.8	0.9 - 6.8	3.4	1.0 - 5.7
Women						
15-44	40.2	3.8 - 76.6	26.2	9.1 - 43.3	28.7	12.5 - 44.8
45-54	7.3	0.0 - 18.1	20.7	9.0 - 32.3	17.4	7.9 - 27
55-64	2.5	0.0 - 6.4	15.2	7.5 - 22.9	10.9	5.4 - 16.4
65-74	3.7	0.0 - 7.5	1.2	0.0 - 2.7	2.1	0.4 - 3.8
≥75	4.9	0.6 - 9.3	3.3	0.2 - 6.3	3.8	1.2 - 6.4

CI: 95% confidence interval.

Figure 1. Age-adjusted five-year net survival of pancreatic cancer (95% confidence interval) by period (a) and age (b) in the Region of Murcia between 1990-2010.

