

Prognosis of the Pancreatic Carcinoma

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Purpose: Currently, pancreatic exocrine carcinomas present with low resectability rates and poor survival, even after curative surgery. In this article, the clinicopathological characteristics, and treatment outcomes, of patients are analyzed and discussed.

Methods: Between 1983 and 2000, 106 exocrine pancreatic carcinoma patients were operated on at our institute. The medical records of 95 patients diagnosed with a ductal adenocarcinoma were reviewed, and the postoperative follow up results analyzed.

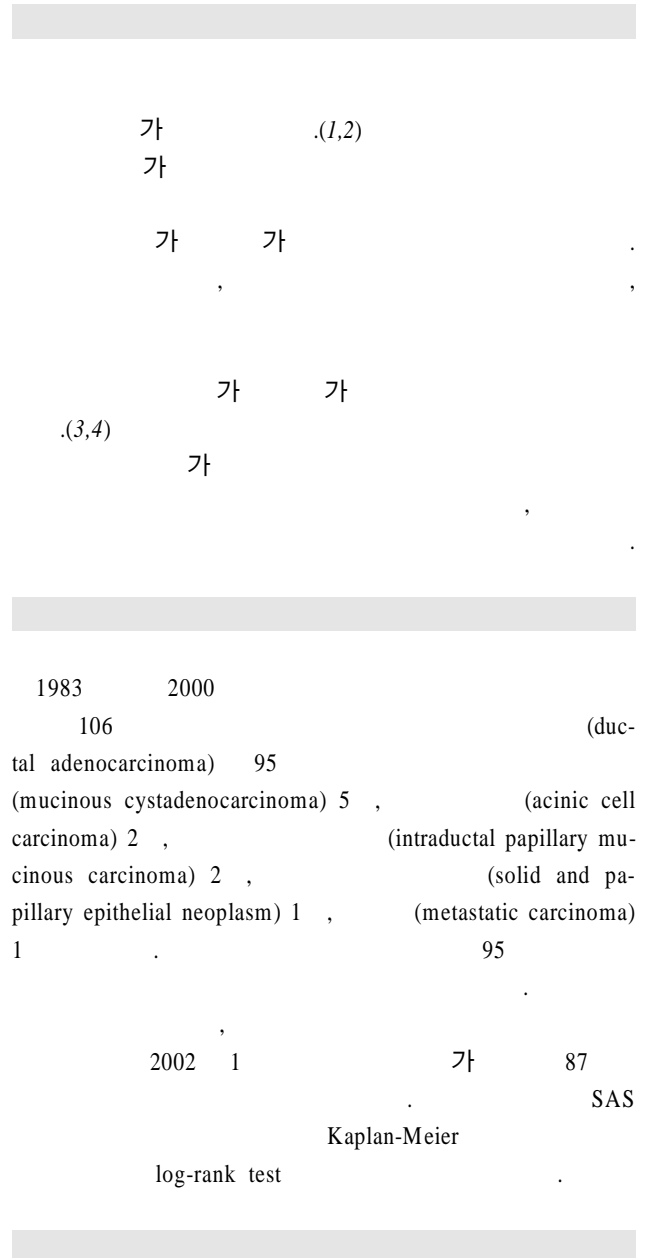
Results: The locations of the tumors were the head, body and diffusely spread in 76 (80.0%), 17 (17.9%) and 2 (2.1%) patients, respectively. Of the 95 patients, 29 underwent surgical resection (resectability rate; 30.6%), 33 palliative bypass procedures and the other 33 an exploration only. The 1-, 3-, and 5-year survival rates in the resection group were 66.7%, 19.8% and 9.9%, respectively. In the non-resection group the 1-year survival rate was 3.3%, with a mean survival period of 5.5 months. The overall 1-, 3- and 5-year survival rates were 23.0%, 6.6%, and 3.3%, respectively. From a multivariate analysis, the location of tumor (P=0.0067), TNM stage (P=0.0010) and resectability of tumor (P<0.0001) were all significant prognostic factors.

Conclusion: Pancreatic carcinomas have very low resectability, with a bad prognosis, and long term survival can only be obtained by their early detection and curative resection. (*J Korean Surg Soc* 2003;64:332-337)

Key Words: Pancreatic carcinoma, Prognosis, Resectability

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1)
18 77 50
60 가 35 가 73.7%

59.2, 69, 26, 7, 22 (23.2%)가
 2.7:1, 45, 11, 4, 2,
 (47.4%), 38 (40.0%), 8 (8.4%), 2, 1, 1, 1
 3 (3.2%), 1, 1 가
 CEA가 67.4%, CA19-9
 75.8%
 가 76 (80.0%), 가 17
 (17.9%), 2 (2.1%)
 (Table 1). 2002 AJCC TNM (5) IA
 5 (5.3%), IB 6 (6.3%), IIA 4 (4.2%), IIB 9
 (9.4%), III 41 (43.3%), IV 30 (31.5%) 3
 74.8%
 29, 9 (31.0%),
 17 (58.6%), 3 (10.4%), 13
 (32.8%) 가
2)
 95, 29, 가
 30.5%, 66, 33
 (34.7%), 33 (34.7%)
 76, 20 (26.3%),
 17, 7 (41.2%), 2, 2 (100.0%)
 가 가 (Table 1).
 1, 2, 24, 가
 100.0%, 3, 41, 2, 4.9%, 4, 30, 3
 10.0%
 23 (79.3%), 20, 18 (90.0%),
 7, 3 (42.9%), 2, 2 (100%)
 20
 12, ,
 가 1, 7
 2
 33
 22, 4, ,

Table 1. Surgical treatment of pancreatic carcinoma according to the location of tumor

Location	Surgical treatment		
	Resection (%)	Bypass (%)	Exploration (%)
Head (n=76)	20 (26.3)	33 (43.4)	23 (30.3)
Body/tail (n=17)	7 (41.2)	0	10 (58.8)
Diffuse (n=2)	2 (100.0)	0	0
Total (n=95)	29 (30.5)	33 (34.7)	33 (34.7)

3)
 87, 1, 3, 5
 23.0%, 6.6%, 3.3%
 12.2, 6.0
 1, 3, 5
 66.7%, 19.8%, 9.9% 26.3
 1, 3.3%
 2 가 5.5
 (P<0.0001)(Fig. 1).
 1, 3, 5 76.2%, 25.5%, 12.8%
 31.8 (6)
 7.2, 1 가
 (P<0.0001).
 가
 1, 3, 5
 18.8%, 7.1%, 2.4%
 43.8%, 6.3%, 0.0% 4
 11.5, 14.8
 , 3.0
 (P=0.0191)(Fig. 2).
 1, 3, 5 68.8%, 27.8%, 9.3%

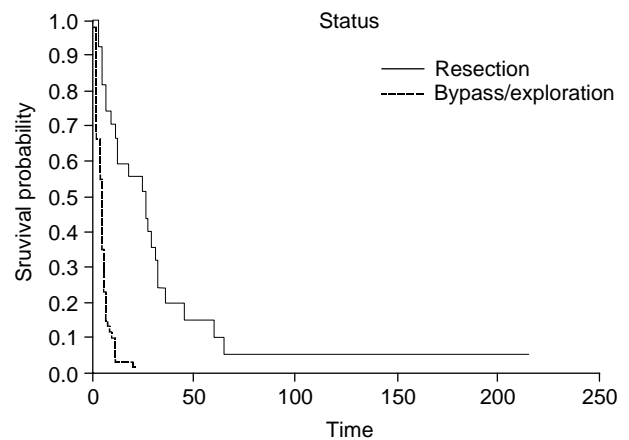


Fig. 1. Survival curves for patients with pancreatic carcinoma after operation. The survival of patients after resection was superior to those after bypass procedures or exploration only (P<0.0001).

50.0%, 8.3%, 0.0%
 (P=0.0005).
 29.0, 18.4
 1
 (IA, IB) 1, 3, 5 100.0%, 33.3%, 11.1%
 2 (IIA, IIB, 3, 4) 1 47.3%,
 15.2%, 4.1% 3 가 가
 (P<0.0001)(Fig. 3).
 1 (IA,
 IB), 2 (IIA, IIB), 4 38.8, 13.2,
 9.3, 5.9

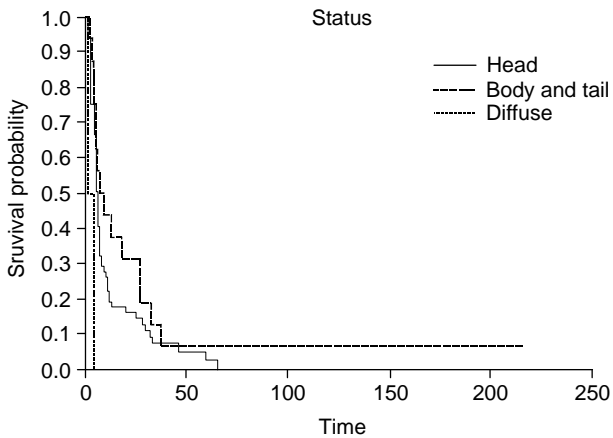


Fig. 2. Survival curves for patients with pancreatic carcinoma according to the location of tumor. Patients with body and tail carcinomas had better survival than those with head carcinoma (P=0.0191).

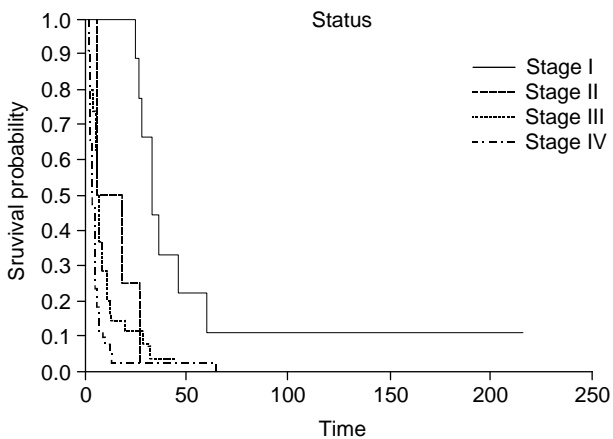


Fig. 3. Survival curves for patients with pancreatic carcinoma according to the TNM stages. There was a significant difference in survival rate between the patients with stage I disease and the other groups (P< 0.0001) (stage I = IA, IB, stage II = IIA, IIB).

Table 2. Prognostic factors of pancreatic carcinoma

Variable	Mean survival (mo)	P-value (log-rank)
Age		0.7513
< 50	13.3	
50~59	13.1	
60~69	10.3	
> 70	12.6	
Gender		0.0155
Male	9.5	
Female	17.7	
Tumor size		0.1419
< 5 cm	16.0	
5~10 cm	9.3	
> 10 cm	9.2	
CA 19-9		0.0621
< 40 U/ml	25.9	
> 40 U/ml	10.2	
Capsule invasion		0.0027
Absent	22.5	
Present	9.6	
Vessel invasion		< 0.0001
Absent	28.5	
Present	7.5	
Lymph node		0.0154
Negative	34.4	
Positive	13.9	
Tumor location		0.0191
Head	11.5	
Body/Tail	14.8	
Diffuse	3.0	
TNM stage		< 0.0001
Stage IA, IB	38.8	
Stage IIA, IIB	13.2	
Stage III	9.3	
Stage IV	5.9	
Treatment		< 0.0001
Resection	26.3	
Bypass/Explore	5.5	

(P=0.0155), 가 (P=0.0191), (P<0.0001), (P=0.0027), (P<0.0001), (P=0.0154), TNM (P<0.0001) model (P=0.0067), TNM (P=0.0010), (P<0.0001)

(Table 2), Cox proportional hazard

가 29.0 18.4 가

가

ron (31) Came-

가

Nitecki (32) 가 5

6.8%

가

가 2.5 cm 가 Geer (33)

가

CA19-9

TNM

26.3%, 30.5% 41.2%

79.3% 90.0%

42.9% 5 9.9% 1

3.3% 5.5

11.5, 14.8

29.0, 18.4

TNM 1 (IA,IB) 5

11.1%, 2 3

가

가

가

가

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