

Ib

Clinical Analysis of Stage Ib Gastric Cancer

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Purpose: The aim of this study was to clarify the clinicopathological differences between T1N1M0 and T2N0M0, particularly the survival rates, and the role of chemotherapy in the stage Ib gastric cancer.

Methods: From January 1992 to December 1999, 118 cases were confirmed as having stage Ib gastric cancer in the Korea University Medical Center. Among them 31 patients were classified as being T1N1M0 and the other 87 cases were T2N0M0. The clinicopathological features and the prognosis were evaluated retrospectively.

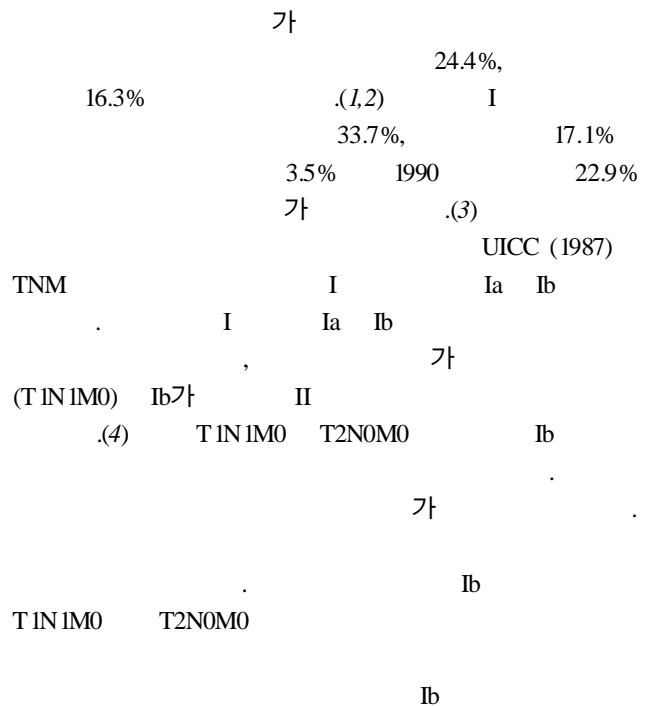
Results: The overall 5-year survival rate of the stage Ib gastric cancer patients was 94%. Overall 5-year survival rates in T1N1M0 and T2N0M0 were 100% and 91%, respectively. Though T1N1M0 group showed better prognosis, there was no significant difference between two groups (P=0.14). D1, D2, and D2+ resections were performed in 28 cases (23.7%), 81 (68.6%), and 9 (7.6%), respectively, and there was no difference in the survival rate (P>0.05). The 5-year survival rates were analyzed according to whether or not they had received chemotherapy. There was a 98% 5-year survival rate with those who had chemotherapy and a 90% 5-year survival rate with those who had not had chemotherapy, but there was no significant difference between them (P=0.18). In the T2N0M0 group, the 5 year survival rates of patients with or without chemotherapy were 97% and 86%, respectively, but there was no significant difference (P=0.16).

Conclusion: Though T1N1M0 group showed a better prognosis than the T2N0M0 group, there was no significant difference between the two groups (P=0.14). There was no significant

survival difference between D1, D2, or D2+ procedures. It appears that post operative intravenous chemotherapy does not affect the prognosis of stage Ib gastric cancer, and the role of the chemotherapy in patients with T2N0M0 diseases is minimal. (*J Korean Surg Soc* 2002;63:305-311)

Key Words: Chemotherapy, Clinicopathologic feature, Gastric cancer, Prognosis, Stage Ib

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1992 1 1 1999 12 31
 1,148
 Ib 118 T1N1M0 (31%) T2N0M0 (87%)
 (Japanese Gastric Cancer Association)
 (The general rules for the gastric cancer study in surgery and pathology)
 1/3 (U), 1/3 (M), 1/3 (L)
 (5) T1N1M0 T2N0M0 Borrmann (6) WHO International Histologic Classification AJCC Cancer Staging Manual (7,8)
 Ib 5 4 112 UICC (Union International Contrala Cancrum) (1987) TNM SPSS Kaplan-Meier Method Log-Rank test P<0.05

1) Ib 118 60 가 40 (33.9%) 가 55.8 27 , 77 가 77 (65.3%), 41 (34.7%) T1N1M0 T2N0M0 2:1 50 (29.0%) 60 (39.1%) 53.2 (P=0.17). 2:1 (Table 1).

2) (5) Ib 118 1/3 (U) 7 (5.9%), 1/3 (M) 33 (28%), 1/3 (L) 78 (66.1%) 1/3 (A) 가 16 (13.6%), 20 (16.9%), 17 (14.4%), 64 (54.2%), 1 (0.8%) T1N1M0 T2N0M0 가 (P=0.2, 0.8)(Table 2, 3).

3) T1N1M0 I 10%, IIa+IIb 10%, IIb 10%, IIb+IIc 20%, IIc 26.8%, IIc+IIb 16.6%, IIc+III 6.6% IIc 가 T2N0M0 I 8.0%, II 31.0%, III 59.8%, IV 1.2% III 가

Table 1. Age & sex distribution

Age	T1N1M0 (n=31)			T2N0M0 (n=87)			P value*
	M	F	Total (%)	M	F	Total (%)	
< 30	0	0	0 (0.0)	2	0	2 (2.3)	
30-39	4	2	6 (19.4)	5	3	8 (9.2)	
40-49	5	1	6 (19.4)	11	2	13 (14.9)	
50-59	5	4	9 (29.0)	13	7	20 (23.0)	
60-69	5	1	6 (19.4)	20	14	34 (39.1)	
> 69	2	2	4 (12.9)	5	5	10 (11.5)	
Total (%)	21 (67.7)	10 (32.3)	31 (100)	56 (64.4)	31 (35.6)	87 (100)	0.17

*Chi-square test.

4) 1 (0.8%) . T1N1M0 1
 (3.2%), 30 (96.8%)
 Ib 118 11 (9.4%), T2N0M0 22 (25.3%),
 51 (42.7%), 54 (46.1%), 2 64 (73.6%), 1 (1.1%)
 (1.7%) . signet-ring cell carcinoma
 T1N1M0 T2N0M0 T1N1M0
 7† (14.5%) . (P=0.9)(Table 4). (P=0.009).

5) 118 D1 28 (23.7%), D2
 81 (68.6%), D2+ 9 (7.6%)
 Ib 23 D2 7†
 (19.5%), 94 (79.7%), T1N1M0 D1 8
 (25.8%), D2 22 (71%), D2+ 1
 (3.2%) , T2N0M0 D1 20
 (23%), D2 59 (67.8%), D2+ 8
 (9.2%) . (P=0.6).
 T1N1M0 3.6±1.1 , T2N0M0
 3.5±1.2 (P=0.8).
 34.7±13.5 , T2N0M0 32.9±16.7
 (P=0.5)(Table 5). T1N1M0 7†

Table 2. Tumor location along the long axis*

	No. of patients (%)			P value [†]
	T1N1M0 (n=31)	T2N0M0 (n=87)	Stage Ib (n=118)	
Upper 1/3	0 (0)	7 (8.0)	7 (5.9)	0.2
Middle 1/3	10 (32.3)	23 (26.4)	33 (28.0)	
Lower 1/3	21 (67.7)	57 (65.5)	78 (66.1)	

*From Japanese Gastric Cancer Association; [†] chi-square test.

Table 3. Tumor location along the transverse axis*

	No. of patients (%)			P value [†]
	T1N1M0 (n=31)	T2N0M0 (n=87)	Stage Ib (n=118)	
Lesser curvature	15 (48.4)	49 (56.3)	64 (54.2)	0.8
Greater curvature	6 (19.4)	11 (12.6)	17 (14.4)	
Anterior wall	5 (16.1)	11 (12.6)	16 (13.6)	
Posterior wall	5 (16.1)	15 (17.2)	20 (16.9)	
Whole circumference	0 (0.0)	1 (1.1)	1 (0.8)	

*From Japanese Gastric Cancer Association; [†] chi-square test.

Table 4. Grade*

	No. of patients (%)			P value
	T1N1M0 (n=31)	T2N0M0 (n=87)	Stage Ib (n=118)	
Well differentiated	2 (6.5)	9 (10.5)	11 (9.4)	0.9
Moderately differentiated	15 (48.4)	36 (40.7)	51 (42.7)	
Poorly differentiated	14 (45.2) [†]	40 (46.5) [‡]	54 (46.1)	
Undifferentiated	0 (0.0)	2 (2.3)	2 (1.7)	

*WHO Histologic Classification and AJCC Cancer Staging Manual; [†] Include 4 cases of signet-ring cell carcinoma; [‡] Include 13 cases of signet-ring cell carcinoma.

가 1.9 ± 1.1 (P=0.3).

6) Ib 118 57 (48.3%) 61 (51.7%) 1 : 1

MFC (Mitomycin-C+5FU+Cytosine arabinoside) 가 49 (80%), FUM (5FU+ACNU+Mitomycin-C) 2 (3%), CDDP+5FU가 10 (17%) MFC 가 Ib 가 (Table 6).

Ib T1N1M0 T2N0M0 가

7) Ib 118 10 (8.5%) 6 4 1 3 3 1 T1N1M0 9.7%, T2N0M0 8.0% (P=0.7).

8) (1) : Ib 5 94% T1N1M0 100%, T2N0M0 91% (P=0.14)(Fig. 1).

(2) : Ib Ib 5 98% 90% (P=0.18). Ib , T2N0M0 5 97% 86%

Table 5. Surgical results

	No. of patients (%)		P value
	T1N1M0 (n=31)	T2N0M0 (n=87)	
Operation			0.009
Total gastrectomy	1 (3.2)	22 (25.3)	
Subtotal gastrectomy	30 (96.8)	64 (73.6)	
Proximal gastrectomy	0 (0.0)	1 (1.1)	
Extent of lymphadenectomy			ns [§]
D1 resection*	8 (25.8)	20 (23.0)	
D2 resection [†]	22 (71.0)	59 (67.8)	
D2+ resection [‡]	1 (3.2)	8 (9.2)	
Operation time (h)	3.6 ± 1.1	3.5 ± 1.2	ns [§]
Mean dissected LN number	34.7 ± 13.5	32.9 ± 16.7	ns [§]

*Gastrectomy with complete removal of group 1 lymph nodes; [†]Gastrectomy with resection of group 1 and group 2 lymph nodes; [‡]D2 resection plus selective removal of the lymph node groups from 12 to 16; [§]ns = statistically not significant.

Table 6. Adjuvant chemotherapy

	No. of patients (%)			P value
	T1N1M0 (n=31)	T2N0M0 (n=87)	Stage Ib (n=118)	
None	16 (51.7)	41 (47.1)	57 (48.3)	0.3
MFC*	12 (38.7)	37 (42.5)	49 (41.5)	
FUM [†]	1 (3.2)	1 (1.1)	2 (1.7)	
CDDP+5FU [‡]	2 (6.5)	8 (9.2)	10 (8.5)	

*MFC: Mitomycin-C+5FU+Cytosine arabinoside; [†]FUM: 5FU+ACNU+Mitomycin-C; [‡]CDDP+5FU: Cisplatin+5FU.

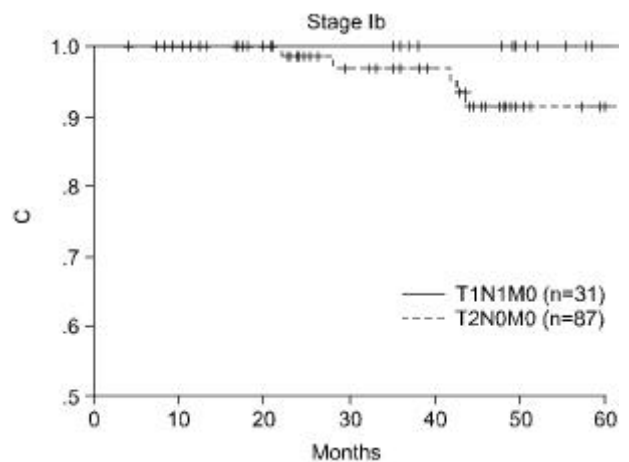


Fig. 1. Cumulative survival curves of patients with T1N1M0 and T2N0M0 (P=0.14).

10 (97.9% vs 88.1%; P=0.005) ,
 가
 (87.5% vs 55.6%; P=0.018).
 가
 (99.4% and 96.7%;
 P=0.12). Borie (11) 15 51
 211 15 51
 5 7
 (95.5% vs 92% and 95.5% vs 88%).
 (20) D1 D2
 D1
 T1N1M0 31 D1 8 (25.8%),
 D2 22 (71%), D2+ 1 (3.2%)
 34.7±13.5
 T1N1M0 가
 T1N1M0
 D1 T1N1M0
 D2
 T2N0M0 87 D1 20 (23%),
 D2 59 (67.8%), D2+ 8 (9.2%)
 (P=0.14). 가
 T2 가
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 .
 .(21)
 . Ib
 Abe (14) T2N0M0
 . Ib
 T2N0M0
 5 97%,
 86%
 (P=0.16).

T1N1M0	T2N0M0
	Ib
	5 98% 90%
	가
	(P=0.18). T1N1M0
	가
	T2N0M0
	(P=0.16). T1N1M0
T2N0M0	Ib
	Ib

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