

## CT

1

. . . . 2 . 2 . 2 . 2

: , , , (CT) , . : 1994 7 1997 7 286 5 CT 138 6 . 101:43 53 . 6 7 CT CT가 617 . CT 3 가 가 1 cm , 가 , . , , . : 5 144 6 (4.2%) , 1 2 , 2 3 , 2 4 , 1 5 . (n=5), (n=4), (n=3), (n=1), (n=1) 가 . (p > 0.4). : CT , 2 . CT가 .

1962 5 90 - 95% (4, 8, 9). (1), 1.0 - 7% 가 (10, 11). 가 , 가 4 - 20% (8, 11). 57% (2, 3). CT 가 1976 - 1977 7.1% , 1994 - 1995 29.1% 가 (4) . , 2 3 , , (D2, D3) (2, 5 - 7). CT CT

1

2

1994 7 1997 7 286 5 CT 6 138 101:43 가 29 79 53 20 1 , 30 24 , 40 37 , 50 43 , 60 27 , 70 12 144 124 (86%) , 20 (14%) , 2 (D2) CT GE HiSpeed (GE Medical Com - pany, Milwaukee, U.S.A.) , 600 mL (Gastrografin , Schering, Germany) , 120 mL (Iopamiro , Schering, Germany) 70 7 mm pitch 1:1 7 mm (axial scan) 6 CT 6 7 CT 617 6 1 29 , 6 - 1 82 , 1 - 18 25 , 18 - 2 91 , 2 - 3 105 , 3 - 4 106 , 4 - 5 116 , 5 - 6 48 , 6 - 7 15 CT 144 617 CT 3 CT 1 cm 가 1 cm 가 가 ( 1/3, 1/3, 1/3), ( ), , ( , ), , 144 4 2 148 1/3 57 (38%), 1/3 72 (49%) I 4 , IIa 6 , IIb 17 , IIc 69 , III 6 IIc 47% 가 46 (32%) 2.7 × 1.8 cm (0.3 - 14 cm) 가 83 (56%),

CT 65 (44%) (intesti - nal type) 82 , (diffuse type) 62 , (mixed type) 4 17 (12%) 가 6 , 2 5 , 가 3 , 5 - 7 가 3 (Table 1). Fisher 's Exact Test p - value 144 6 4.2% 1 - 2 1 , 2 - 3 2 , 3 - 4 2 , 4 - 5 1 (Table 2). 71 (60 - 77 ) , 5 , 1 가 2 , 가 4 , 4.5 cm (1.5 - 8.5 cm) I+IIa, IIb, IIb+IIc, IIc, IIc+IIb, III+IIc 가 1 , 4 , 1 , 1 . 6 1 2 가 , 6.3 × 4.5 cm

**Table 1.** Clinicopathologic Findings in 144 Patients with Early Gastric Cancer

Factor	No. (%)
Age	
< 60	103 (71.5)
60	41 (28.5)
Sex	
Male	101 (70)
Female	43 (30)
Location*	
Upper 1/3	19 (13)
Mid 1/3	57 (38)
Lower 1/3	72 (49)
Size*	
< 2 cm	54 (36)
2 cm	94 (64)
Depth of invasion*	
Mucosa	83 (56)
Submucosa	65 (44)
Histological type*	
Intestinal	82 (55)
Diffuse	62 (43)
Mixed	4 (2)
Lymph node metastasis	
Negative	127 (88)
Positive	17 (12)
Type of gastrectomy	
Total	20 (14)
Subtotal	124 (86)

\*148 EGCs in 144 patients

III+IIc,

(n=5) (Fig. 1),

(n=4) (Fig. 2),

(n=3) (Fig.

3),

(n=2),

가

가

(Table 2).

3

3

CT

CT

(p=0.001)

(p > 0.4) (Table 3).

1962

가

(1)

가

25 - 46%

가

(2 - 4).

가

가

(4, 8).

가

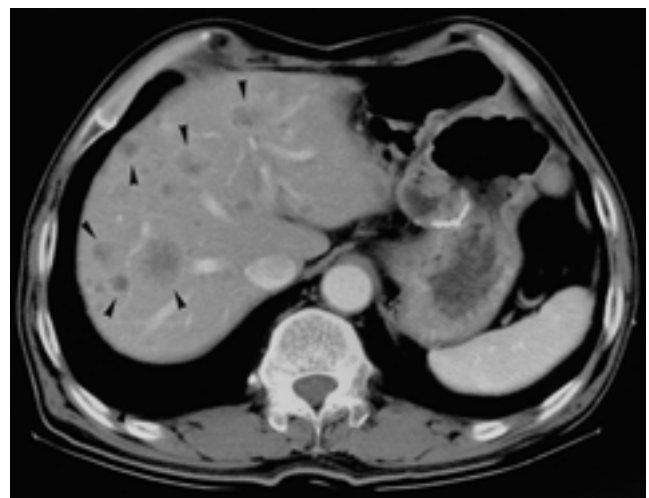
**Table 2.** Time and Modes of Recurrence for Early Gastric Cancer

Yrs. after	No. of	Recurrence Mode					
		Surgery	Recurrence	Liver	LN	Stomach	Adrenal GL Lung
2 - 3yr	1			1	1	1	
3 - 4yr	2			2	2	1	
4 - 5yr	2			1	2	1	1
5yr -	1						

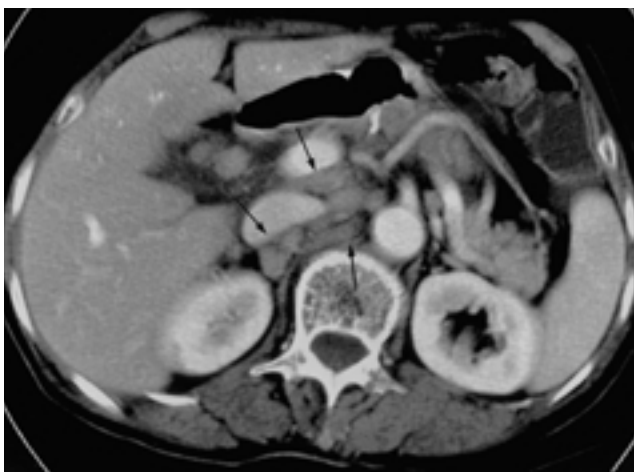
GL: gland

**Table 3.** Prognostic Factors Affecting Recurrence of Early Gastric Cancer

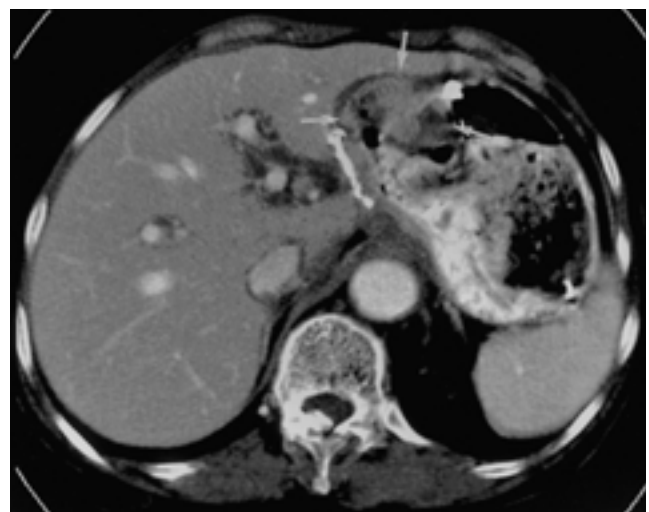
Variable	p-Value
Age	.000
Depth	.410
Size	.669
Cell type	.404
LN metastasis	1.000
Type of gastrectomy	1.000



**Fig. 2.** 60-years-old man underwent subtotal gastrectomy with Billroth-II anastomosis. Post-contrast abdominal CT scan obtained 3 years after operation shows multiple low attenuated masses in liver representing hepatic metastases (arrow heads).



**Fig. 1.** 71-years-old women underwent subtotal gastrectomy with Billroth-I anastomosis. Post-contrast abdominal CT scan obtained 4 years after operation reveals multiple metastatic lymph nodes in portocaval and retrocaval spaces and around SMA (arrows).



**Fig. 3.** 63-years-old man underwent subtotal gastrectomy with Billroth-II anastomosis. Post-contrast abdominal CT scan obtained 2 years after operation reveals soft tissue mass at anastomotic site (white arrows) confirmed to be recurrence by endoscopic biopsy.



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## Usefulness of Follow-up Computed Tomography after Surgery for Early Gastric Cancer<sup>1</sup>

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**Purpose:** To analyze the recurrent rate, time of recurrence, type of recurrence and the relationship between recurrence and histopathologic findings after radical gastrectomy for early gastric cancer and evaluate the usefulness of follow up abdominal computed tomography after surgery.

**Materials and Methods:** We retrospectively evaluated 617 abdominal computed tomographic examinations of 144 patients (101 male, 43 female, mean age, 53 years) who underwent radical subtotal gastrectomy for early gastric cancer between July 1994 and July 1997. Follow-up abdominal CT scans were reviewed by three abdominal radiologists for detection of recurrence of early gastric cancer, and endoscopic and pathologic findings were correlated. We also reviewed the surgical pathologic reports for location, size, cell type and depth of invasion of early gastric cancer and lymph node invasion. We analyzed the recurrent rate, time and type of recurrence, and relationship between recurrence rate and pathologic characteristics of early gastric cancer.

**Results:** The recurrent rate was 4.2% (6/144) during 5 - 7 years after radical subtotal gastrectomy for early gastric cancer. The recurrence was detected on 2 - 5 years after operation. The types of recurrence were lymph node metastasis ( $n=5$ ), liver metastasis ( $n=4$ ), recurrence in the residual stomach or anastomotic site ( $n=3$ ), adrenal metastasis ( $n=1$ ), and lung metastasis ( $n=1$ ). Relationship between recurrence and location, size, depth of invasion and cell type of early gastric cancer and lymph node metastasis was not significant statistically ( $p>0.4$ ).

**Conclusion:** The recurrence rate of early gastric cancer after radical subtotal gastrectomy is very low and occurs after two years. The follow up-CT scans can detect all recurrence of early gastric cancer, so regular follow-up abdominal CT examination is useful.

**Index words :** Stomach, neoplasms  
Stomach, CT

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