

위 절제술

Laparoscopic Surgery for Gastric Cancer

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18^{81 1 29}, Christian
Albert Theodor Billroth
(1829 ~ 1894) 43

4

Abstract

Advanced laparoscopic surgeries have been widely practiced with an advent of sophisticated instrumentation and development of new technologies. Selection of laparoscopic therapeutic modalities such as intragastric mucosal resection, local resection, and gastrectomy with lymphadenectomy have been decided by gastric cancer treatment guidelines which will be published in the near future in Korea. The indication of laparoscopic surgery is mainly based on the size of lesion, depth of tumor, and histological type. However in order to extend the indications of laparoscopic surgery for gastric cancer, standardization of the procedure of laparoscopic en - block lymphadenectomy is necessary. For more active adoption of Minimally Invasive Surgery in the field of gastric diseases, it is mandatory to resolve medical insurance obstacle and to verify the advantages of this surgery without harming the basic principles of cancer surgery through prospective randomized studies. It is speculated that the "tailored therapy" with less invasive laparoscopic surgery for stage I, II and more aggressive conventional open surgery for stage III, IV will be the surgical treatment trend for gastric cancer in the near future.

Keywords : Minimally Invasive Surgery; Laparoscopic gastrectomy;
Gastric cancer

: ;

(1).

1987 Schlatter가

1940
1950 Mc-

Neer Wangenstein

Kajitani가

1950

1980

가

20

Siu (3)

가

가

가

(Transatlantic robot - assisted telesuregry
or Lindbergh operation)

가

가

(laparoscopic truncal vagotomy and pylo-
roplasty)

가

가

(la-

paroscopic posterior truncal vagotomy)

(laparoscopic anterior seromyotomy)

(la-

paroscopic truncal vagotomy and stapled gastroje-
junostomy)

(Bill-

roth type II laparoscopic distal gastrectomy)

H. Pylori

가

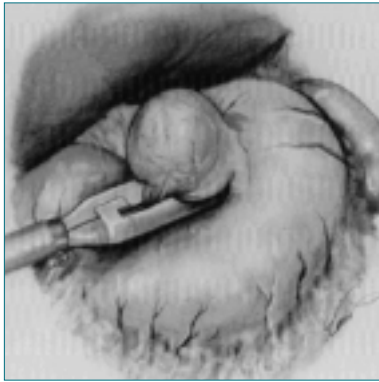
(lapa-

roscopic primary closure and ometopexy)

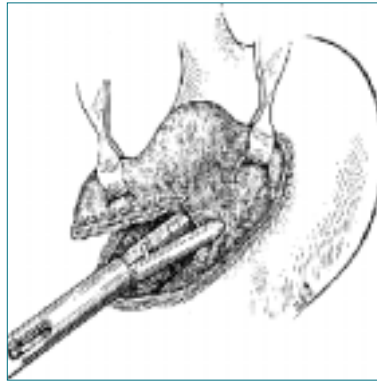
, , , , , , , , inflamma-
tory fibroid polyp, GIST, carcinoid tumor

1996 Lau (2)

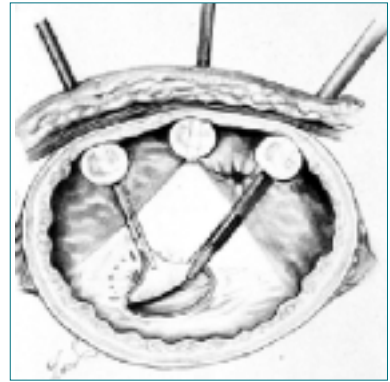
가



1.



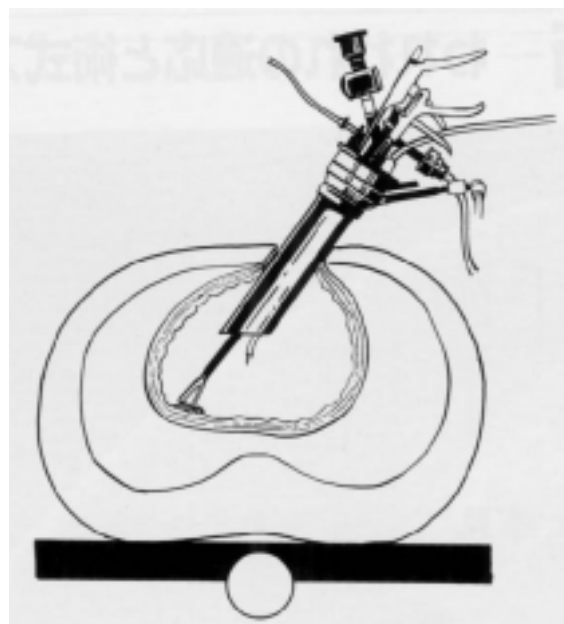
2.



3.

가 (1~2 cm)
(Wedge resection) “ ?”, “ ?”
(4, 5). 가
extraluminal(1), trans- . 가
gastric(2), intraluminal(3) 가
,
, exo- 2
phytic extraluminal ,
endophytic 가?
transgastric intraluminal .
가 . () D1
intralu- (1)
minal 가 가 . 90%
가 5 cm 50%,
가 35%

가 .
 , CT, MRI
 10 mm 90%
 PET scan
 10 mm 90%
 가 .
 ,
 가
 .
 ,

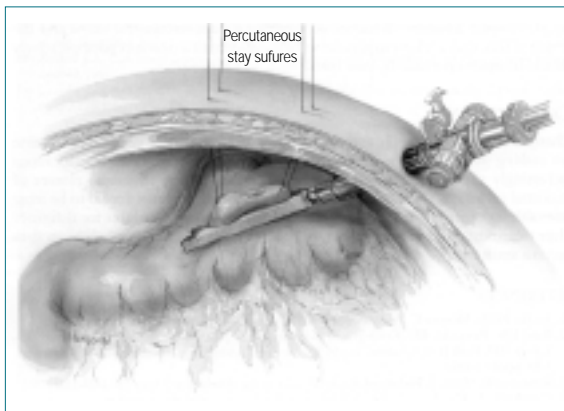


4.

surgery
 가
 25() ~ 15 mm(,)
 가 가 .

1. 가
 (Interventional Flexible Endoscopic Treatment) (lesser curvature) In-
 (T1mm) nerdyne cannula
 가 2 cm
 가 가 (full - thickness resection)
 (EMR, endoscopic mucosal resection) 가 (3).

3.
 2. (Transgastrostomal Endoscopic Surgery)
 (Laparoendoscopic Resection) 가
 Ohashi (6) laparoscopic intragastric (mucosectomy) (full - thickness



5.

resection) 가 (mid-line incision) (anterior gastrotomy) (gastrotomy) (edge) (operating short proctoscope) (4).

4.

(Laparoscopic Gastric Wedge Resection)

fastener localization T - (lesion lifting) (2 cm) 가 (5). Ohgami (7) (EMR) 가 가 . EMR

가

가

가

가 80 ~ 90%

10 ~ 20%

가

가 90%

가

15 ~ 30%

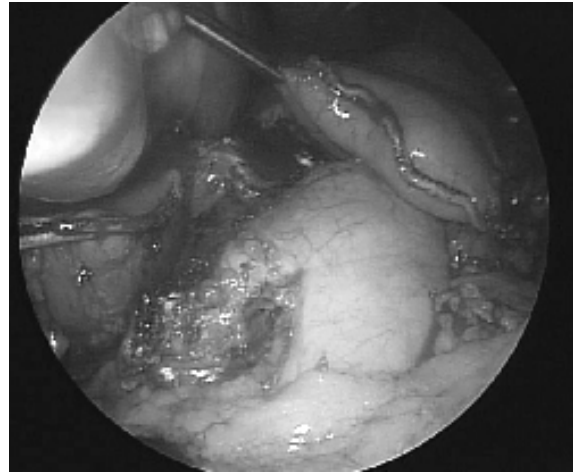
5.

(Laparoscopic Radical Gastrectomy)

가 4%, 20% 1 5% 2 (No. 7, 8) 가 80% D1+ alpha 가 가 laparoscopic radical gastrectomy(8, 9)가 가 (totally intracorporeal



6.



7.

laparoscopic procedure)

(subtotal total)

2

가 (depth perception)

(tactile feedback)

, (laparoscopy - assisted procedure)
(laparoscopic technique)

(pneumoperitoneum)

가

가

mini - laparotomy(4~5 cm)

가

, (laparoscopic and minilaparotomy gastrectomy)

가

가

가

1. (Diagnostic Laparoscopy)

Bypass

가

, HALS(Hand - assisted laparoscopic surgery)

가

mini - laparotomy

가

가

가
가
bypass () . 가
.
(10)(6). 가

2. Laparoscopic D2 Gastrectomy(7) (D2 D3)

2 가 가 .
.
T2N1 가
가 T3
(peri-
toneal dissemination) 가 3
가
D2 (gastrectomy)
(routine procedure) con- 10
sensus가
.
가 .
Ohgami .
가 2002 1,000
가 ,
100 .
가 가 가
가 , 20~30 , techno-
logic and instrument based surgery
가 (harmonic scalpel, argon
beam coagulator) (trocar, clip

, endo - GIA)

가 .

2001

가

가 가 .
가

가

가

가

(learning curve)

가

가

가가

가

가

“tailored therapy”

가



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