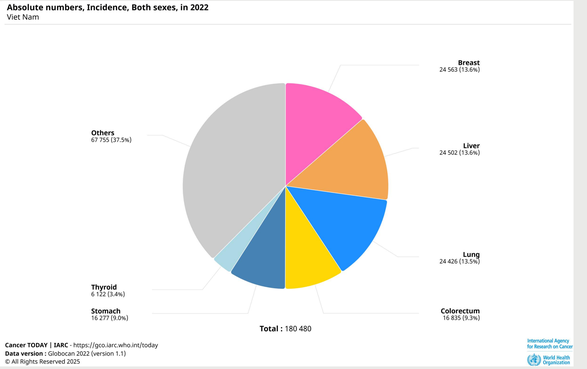
CHO RAY HOSPITAL
Digestive Surgery Department

LONG-TERM OUTCOMES OF LAPAROSCOPIC GASTRECTOMY FOR CANCER: A SINGLE SURGEON'S EXPERIENCE

Tran Phung Dung Tien, Nguyen Vo Vinh Loc, Dang Chi Tung, Nguyen Vinh Thu, Tran Thuy Cat

INTRODUCTION

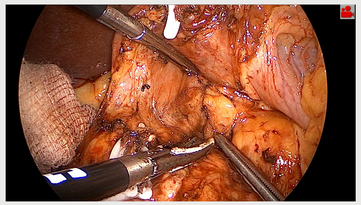
Similar to the global trend, in Vietnam, gastric cancer is the fifth most common cancer. The primary treatment for gastric cancer remains gastrectomy. Minimally invasive surgery has been proven to be a safe approach for gastrectomy in treating cancer. Several studies have demonstrated the effectiveness of laparoscopic surgery in treating early-stage gastric cancer. For advanced gastric cancer, the role of laparoscopic gastrectomy is still under investigation, with initial promising results.

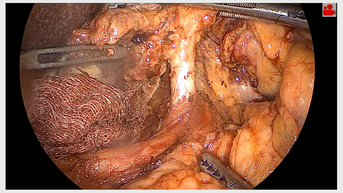


PATIENTS AND METHODS

Patients

We conducted a prospective study evaluating patients with gastric adenocarcinoma staged cT2-4N+M0 (according to the 8th edition of the AJCC) from June 2018 to December 2022 at the Digestive Surgery Department, Cho Ray Hospital, a tertiary referral hospital in Vietnam. We selected patients from a single surgeon who had completed a learning curve with over 100 cases of laparoscopic gastrectomy prior to the study.





Methods

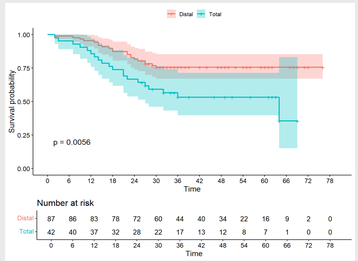
Patients underwent surgery and were evaluated according to the Japanese Gastric Cancer Association (JGCA) guidelines. Cases of gastric tumors located in the middle and upper third of the stomach underwent total gastrectomy, while those in the lower third underwent distal subtotal gastrectomy. All cases underwent D2 lymphadenectomy according to the surgical procedure. Roux-en-Y reconstruction was performed for digestive tract continuity. Postoperative complications were assessed using the Clavien-Dindo classification. Patient follow-up was conducted in accordance with the JGCA guidelines.

RESULTS

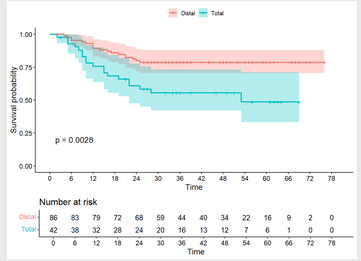
Patients' characteristics	n=129	%
Gender male, n (%)	77	59.7
Mean age (years)	62.3 ± 11.8	
BMI, mean	21.9 ± 4.0	
Comorbidities, n (%)	28	21.7
Diabetes mellitus	4	3.1
Hypertension	17	13.2
Others	14	10.9
Differentiation, n (%)		
Poorly	39	30.2
Medium	86	66.7
Well	4	3.1
pT, n (%)		
1b	1	0.8
2	23	17.8
3	33	25.6
4a	72	55.8
pN, n (%)		
0	48	37.2
1	28	21.7
2	33	25.6
3	20	15.5

Operation characteristics	n=129	%
Operation time (minutes), median (IQR)	240 (220-270)	
Hospital stays (days), median (IQR)	8 (7-9)	
Surgical spproach, n (%)		
Laparoscopy	117	90.7
Conversion to open	12	9.3
Gastrectomy		
Total	42	32.6
Distal	87	67.4
Operative accidents, n (%)	2	1.6
Postoperative complications, n (%)	2	1.6
Complication grade, n (%)		
I	0	0
II	1	0.8
IIIa	0	0
IIIb	1	0.8
IVa	0	0
V	0	0
Pulmonary infection (II)	1	0.8
Duodenal leakage	0	0
Anastomotic leakage	0	0
Splenic infarction (IIIb)	1	0.8
Mortality	0	0

Overall survival



Progression-free survival



5-year Survival	Total (n=42)	Distal (n=87)
Overall survival	53.2%	75.6%
Median overall survival time	64 months	Not reach
Progression-free survival	48.6%	78.7%
Median progression-free survival time	53 months	Not reach
Median follow-up time	48 months	

DISCUSSION

Since the first laparoscopic gastrectomy performed by Seigo Kitano in 1991, this procedure has continuously evolved and been standardized, primarily by East Asian surgeons. Today, this procedure has become routine for early-stage gastric cancers. In high-volume centers, laparoscopic gastrectomy is also performed for advanced gastric cancers. The generally favorable surgical outcomes observed in these centers have provided a foundation for wider adoption of laparoscopic gastrectomy. In a developing country like Vietnam, we have also successfully applied laparoscopic gastrectomy to treat advanced gastric cancer with favorable short-term and long-term outcomes.

CONCLUSION

In the hands of experienced surgeons, laparoscopic radical gastrectomy with lymphadenectomy yields favorable short-term and long-term outcomes.

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