Comparative study of Palliative Gastrojejunostomy- Roux en Y vs Antecolic Loop

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Abstract

Background: Worldwide, however, gastric cancer remains the fifth most common cancer and a leading cause of cancer mortality. The incidence of gastric cancer has considerable geographic variability with a significantly higher occurrence in Asia and Latin America than in North America and Europe. The average age of diagnosis in the United States is 69 years of age with the majority of patients diagnosed in the seventh decade of life and later. Men are more likely to have gastric cancer than women, and Hispanic Americans, African Americans, and Asian/Pacific Islanders are more frequently affected than non-Hispanic whites. Individuals with lower socioeconomic status are more likely to be affected in both the United States and in developing countries. Since 1930, the incidence of gastric cancer has decreased significantly, although the reasons for this change are unclear. The incidence of tumors located distally within the stomach have decreased, whereas the incidence of more proximal gastric tumors has increased. Despite the decreasing incidence, gastric cancer remains highly lethal in the United States with an anticipated overall 5-year survival rate of 29%. Most of the time patients present to OPDs with signs of inoperability. Those who planned for surgery landed up in diversion in two third of cases. This study is to specify which diversive procedure will be effective in patients symptom free.

Key words: Gastric cancer

Introduction:

Factors associated with Gastric cancer

Table 1: Factor associated with increased risk for developing stomach cancer

Nutritional
Low fat or protein consumption
Salted meat or fish
High nitrate consumption
Obesity
High complex carbohydrates consumption

Environmental
Poor food preparation (smoked, salted)
Lack of refrigeration
Poor drinking water(e.g. contaminated well water)
Smoking and alohol
Social
Low socioeconomic class
Medical
Prior gastric surgery
Helicobacter pylori and Epstein-Barr virus infection
Prior abdominal irradiation
Atrophic gastritis
Adenomatous polyps
Other
Male sex

Classifications

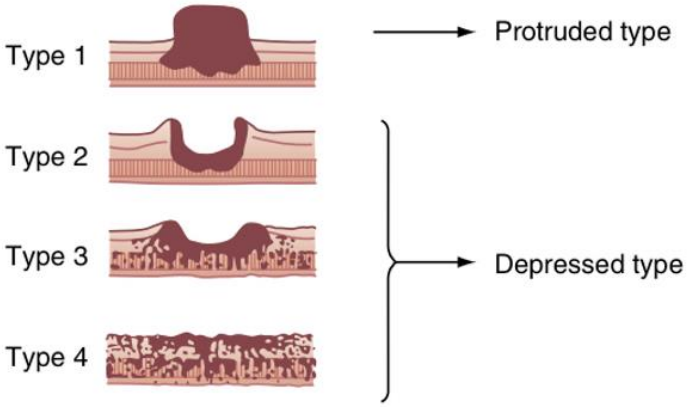


Figure 1: Borrmann pathologic classification of gastric cancer based on gross appearance. (From Iriyama K, Asakawa T, Koike H, et al. Is extensive lymphadenectomy necessary for surgical treatment of intramucosal carcinoma of the stomach? Arch Surg. 1989;124:309-311)

Table 2: Lauren classification system for gastric cancer.

Intestinal	Diffuse
Environmental	Familial
Gastric atrophy, intestinal metaplasia	Blood type A
Men> Women	Women>men
Increasing incidence with age	Younger age group
Gland formation	Poorly Differentiated, signet ring cells
Hematogenous spread	Transmural, lymphatic spread
Microsatellite instability	Decreased E- cadherin
APC gene mutations	
P53, p16 inactivation	P53, p16 inactivation

APC, Adenomatous polyposis coil.

TNM Staging

Table 3: Tumor, node, metastasis classification of carcinoma of the stomach

Primary Tumor(T)	
Tx	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma in situ; intraepithelial tumor without invasion of the lamina propria, high-grade dysplasia
T1	Tumor invades lamina propria, muscularis mucosae, or submucosa
T1a	Tumor invades lamina propria, or muscularis mucosae
T1b	Tumor invades submucosa
T2	Tumor invades muscularis propria
T3	Tumor penetrates subserosal connective tissue without invasion of visceral peritoneum or adjacent structures
T4	Tumar invades serosa(visceral peritoneum) or adjacent structures
T4a	Tumor invades serosa(visceral peritoneum)
T4b	Tumor invades adjacent structures
Regional Lymph Nodes (N)	
NX	Regional lymph node(s) cannot be assessed
N0	Mo regional lymph node metastasis
N1	Metastasis in 1-2 regional lymph nodes
N2	Metastasis in 3-6 regional lymph nodes
N3	Metastasis in 7 or more regional lymph nodes
N3a	Metastasis in 7-15 regional lymph nodes
N3b	Metastasis in 16 or more regional lymph nodes
Distant Metastasis(M)	
M0	No Distant metastasis
M1	Distant metastasis

Table 3a

Pathologic Stage	Prognostic Group		
0	Tis	N0	M0
IA	T1	N0	M0
IB	T1	N1	M0
	T2	N0	M0
IIA	T1	N2	M0
	T2	N1	M0
	T3	N0	M0
IIB	T1	N3a	M0
	T2	N2	M0
	T3	N1	M0
	T4a	N0	M0
IIIA	T2	N3a	M0
	T3	N2	M0
	T4a	N1	M0
	T4a	N2	M0
	T4b	N0	M0

IIIB	T1	N3b	M0
	T2	N3b	M0
	T3	N3a	M0
	T4a	N3a	M0
	T4b	N1	M0
	T4b	N2	M0
IIIC	T3	N3b	M0
	T4a	N3b	M0
	T4b	N3a	M0
	T4b	N3b	M0
IV	Any T	Any N	M1

From Amin MB, Edge SB, Greene FL, et al. AJCC cancer staging, Manual. 8th ed. New York: Springer international publishing. 2017

Aim of study: To compare the efficacy of Roux en y and antecolic loop Gastro jejunostomy in Advanced carcinoma stomach.
Place of study: Government Medical College Hospital, Nagapattinam.
Sample size: 20
Study type: Comparative study
Inclusion criteria: Patients with advanced stomach cancer
Exclusion criteria: Patients with operable or Early type gastric cancer.

Results

Table 1

Age	Male	Female
40-50	2	1
60-70	12	3
70-80	1	1

Results of the study shows Gastric cancer is more common in men when compared with women. 60-70 is the age group which affected more.

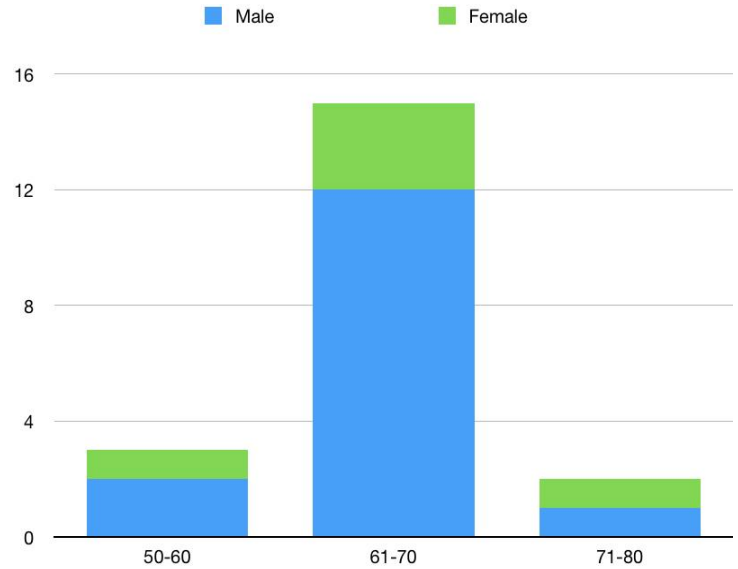


Figure 2

Those who undergone Roux En Y Gastro jejunostomy had lesser complications when compared with Antecolic Gastrojejunostomy. Most common complication in patients undergoing Antecolic GJ is Biliary reflux gastritis. Other complications include Dumping syndrome, anastomotic leak and metabolic complications.

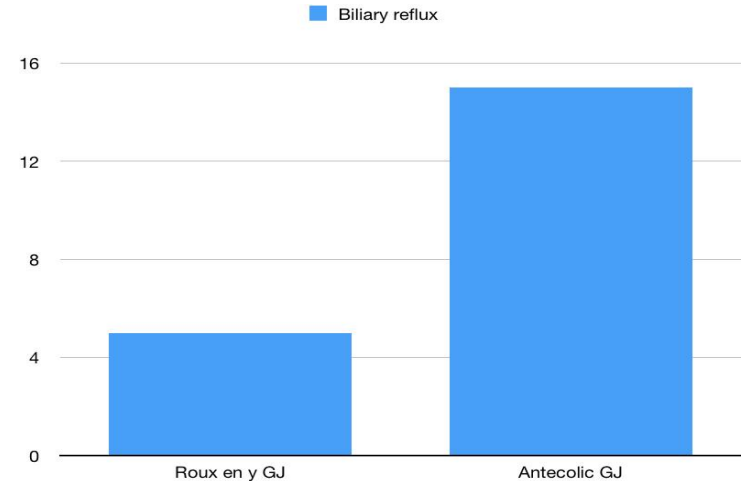


Figure 3

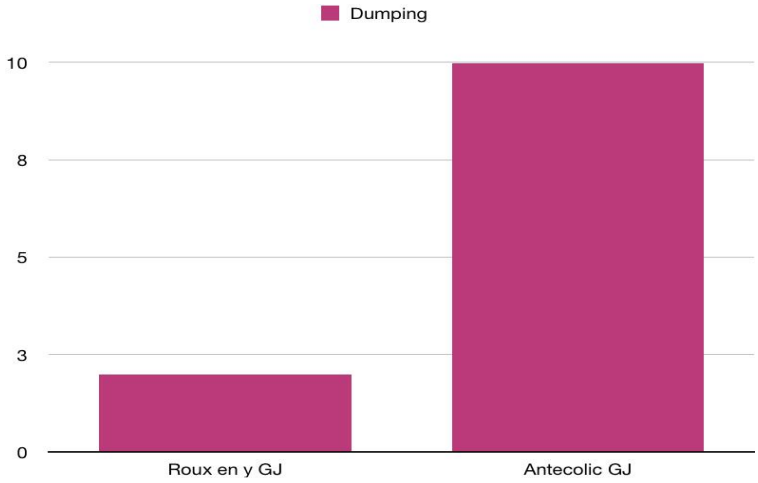
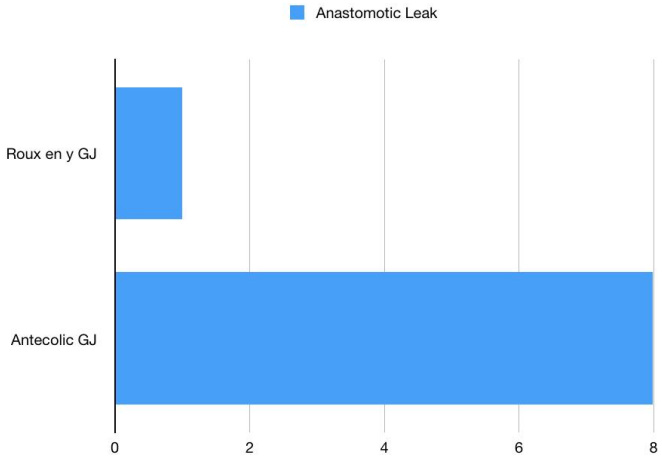


Figure 4



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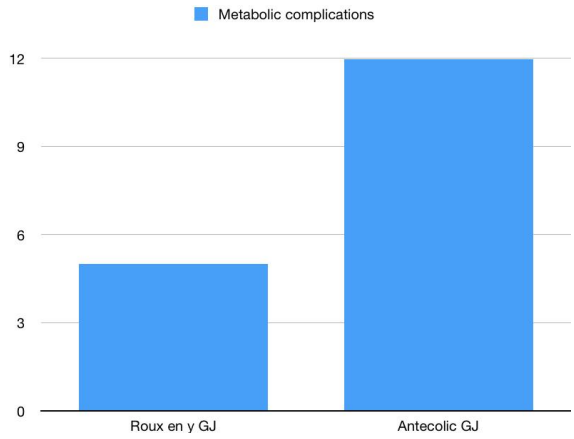

Figure 6

Conclusion

Locoregionally advanced or metastatic gastric cancer does not benefit from surgical resection. Obstruction and bleeding tend to be the most common symptoms. Palliative intent gastrectomy is rarely performed, but may be beneficial for uncontrolled bleeding after failure of radiation therapy, which is the preferred management for tumor-related bleeding. Gastric bypass with gastrojejunostomy may be performed for obstruction in an attempt to palliate symptoms. However, recent advances in endoscopic management, including the use of stents, may allow for sufficient symptom control without the need for invasive procedures.Although survival rates for gastric cancer have slowly improved, the overall 5-year survival rate remains poor at 29%. Prognosis correlates with the stage of disease at initial presentation. Here we conclude the study by addressing Roux en Y GJ is better than Antecolic GJ.

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