Role of palliative surgery in advanced gastric carcinoma

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Abstract

In a 3-year period from July 1995 to June 1998, seventy four patients with advanced primary stomach cancer treated surgically in the Department of Surgery, Tribhuvan University Teaching Hospital, Kathmandu. They were reviewed retrospectively in order to clarify the role of palliative surgery. Out of 74 patients, 69 were treated with palliative surgery (93.2%) and were used for analysis in this study. Five cases were excluded because only 'open and close' was done. There were 43 men and 31 women; the male to female ratio was 1.4:1. The mean age at diagnosis was 57ą14 yrs (range 29 to 84 yrs). Almost all patients with gastric carcinoma presented with symptoms of not less than 4 months before subjecting to endoscopic diagnosis . The common symptoms at the presentation were pain (75.4%), vomiting (49.3%), bleeding (13%) and dysphagia (10.1%), respectively. The primary sites of gastric tumours were antrum (65%), body (22%) and cardia (13%) of the stomach, respectively. Most of the advanced gastric cancer were in stage IIIB (40.5%), followed by stage IV (33.8%) and IIIA (25.7%). Radical palliative surgery (RPS) included total or subtotal gastrectomy or partial gastrectomy. Conservative palliative surgery (CPS) comprised of mainly gastroenterostomy and feeding jejunostomy. RPS was performed on 40 patients (58%) and rest of the patients were subjected to CPS. Median postoperative hospital stay was 13ą7.4 days and 8ą3.2 days in RPS and CPS group, respectively. There was 6% perioperative mortality including one patient who died due to advanced gastric cancer perforation. RPS group had significantly better palliation of symptoms when compared with CPS (83% vs 50%) (p= <0.05). Although the follow-up rate is not good, survival and achievement of a good quality of life were higher following radical palliative than conservative palliative surgery. RPS in locally advanced gastric cancer is safe and should always be attempted whenever possible. Postoperative mortality is low and good palliation can be achieved.

Keywords: Advanced gastric cancer; diagnostic delay; palliative surgery; quality of life.

Introduction

Gastric cancer is the leading cause of mortality in many countries.1 In Nepal, the exact cancer data are not available, however, gastric cancer is one of the most common cancer.2 Except for few countries, mass screenings for gastric cancer have not been widely practised, thus, most of the patients with gastric cancer present with advanced disease of poor surgical outcome.3 The role of palliative surgery in advanced gastric cancer has long been advocated for the relief of symptoms to improve the quality of life (QOL), the prolongation of comfortable survival or without producing new symptoms.4 It is well established that gastric cancer patients without symptoms are not the candidates for palliative surgery. Palliative surgery is only indicated when the symptoms are imminent. The symptoms which commonly call for surgical palliation are pain abdomen, vomiting, dyspagia and bleeding. In general, radical palliative surgery in gastric cancer offers a chance of good quality prolonged survival than conservative palliative procedures.4-8 The purpose of this study was to clarify the role of palliative surgery in primary gastric cancer patients treated at Tribhuvan University Teaching Hospital during past three years.

Patients and methods:

In the period of 3 years from July 1995 to June 1998, the records of seventy four patients with advanced primary stomach cancer treated surgically in the Department of Surgery, Tribhuvan University Teaching Hospital, Kathmandu, Nepal were analysed retrospectively. All cases presented with single or multiple prominent symptoms. Each case was assessed preoperatively (clinical examination, upper gastroendoscopy, biopsy, biochemistry, USG/CT Scan, cytology, or laparoscopy) and operatively
(disease status- no metastatic, modest metastatic, or advanced metastatic disease) to decide on two pairs alternatives; radical palliative or conservative palliative surgery, and conservative palliative surgery or
'open and close'. To clarify the roles of palliative surgery in advanced gastric cancer, patients characteristics, disease status, type of palliative surgery, operative morbidity and mortality, and survival were analysed.

Statistical analysis: The significance of difference was analysed using Fisher's exact probability test by Epi Info version 6. The differences with p-values less than 0.05 were considered significant.

Results

Out of 74 patients, 69 were treatedwith palliative surgery (93.2%) and were used for analysis in this study. Three cases were operated as oncologic surgical emergency and the rest as an elective surgery. Five cases were excluded because only 'open and close' was done for widely disseminated disease. There were 43 men and 31 women out of 74 cases in this study; the male to female ratio was 1.4:1. The mean age at diagnosis was 57ą14 yrs (range 29 to 84 yrs). The duration of symptoms was 4 months with the range of 4 to 24 months (Table I). The common symptoms palliated were pain abdomen (75.4%), vomiting (49.3%), bleeding (13.0%) and dysphagia (10.1%), respectively (Table II). All the elective cases were endoscopically diagnosed advanced gastric carcinoma as shown in Fig. 1. Pre- or postoperative histological diagnosis of adenocarcinoma were available for all cases. Primary
tumours were located in antrum, body and cardia regions of the stomach; 48 cases (65%), 16 cases (22%) and 10 cases (13%), respectively (Fig.2). According to UICC stagingsystem, 25.7%, 40.5% and 33.8%, were in stage IIIA, IIIB and IV, respectively (Table III). Radical palliative surgery including total or subtotal gastrectomy or partial gastrectomy was performed on 40 patients (58%). Conservative palliative surgery comprising mainly gastroenterostomy and feeding jejunostomy was done in rest of the cases (Table IV). Table V illustrates the postoperative follow-up records of 46 cases of advanced gastric carcinoma Median postoperative hospital stay was 13ą7.4 days (range 8 to 36 days) and 8ą3.2 days (range 6 to 22 days) in resected and non resected group, respectively. Postoperative wound infection was minimum in both groups (2 in RPS vs 1 in CPS). Anastomotic leakage was in one case of RPS (total gastrectomy), which was managed conservatively. There was four perioperative mortality including one patient with advanced gastric cancer perforation in a very poor general condition. One perioperative mortality was found in RPS and 3 in CPS, respectively. Resected group had significantly better palliation of symptoms when compared with CPS (83% vs 50%). Although long term follow up rate is very poor, six months to 2 years survival was found in 10 cases of RPS group and only one in CPS group.

Table I: Patients characteristics of 74 advanced gastric cancer

Age	57ą14 years	(Range 29 to 84)
Sex	M=43, F=31	(Ratio 1.4:1)
H/O Symptoms	≥ 4 months	(Range 4 to 24)

Table II: Pertinent symptoms being palliated

Symptoms	*No. (%)*
Pain abdomen	52 (75.4)
Vomiting	34 (49.3)
Bleeding	09 (13.0)
Dysphagia	07 (10.1)

Table III: UICC staging of 74 gastric cancer

Stage	*No. (%)*
IIIA (T2-4 & N2-0)	19 (25.7)

IIIB (T3-4 & N2-1)	30 (40.7)
IV (T4N2M0 or Any T, N & M1)	25 (33.8)

Table IV: Palliative surgery done for advanced gastric cancer

Type of Surgery	*No. (%)*
Radical Palliative Surgery	40 (58)
Total/subtotal gastrectomy	16 (23.2)
Partial gastrectomy	24 (34.8)
Conservative Palliative Surgery	29 (42)
Gastrojejunostomy	24 (34.8)
Feeding jejunostomy	05 (07.2)

Table V: Postoperative follow-up of 46 cases

	RPS (n=30)	*CPS (n=16)*
Hospital stay (days):	13 ą 7.4	7 ą 3.2
Wound Infection	2	1
Anastomotic leakage	1	0
Mortality within 30 days	1	3
Symptoms palliated	25	8*
6 months to 2 yrs survival	10	1

* statistically significant

Fig. 1: Endoscopic classification of advanced gastric carcinoma

Fig. 2: Locations of gastric carcinoma

Discussion

Early diagnosis of gastric cancer is the only hope of cure for patients with gastric cancer. Therefore, every practising doctor especially in the country where mass screening is not feasible, should be alert to the possible presence of stomach cancer in any patient who complains of dyspepsia or is anaemic. For this reason, every patient over 40 years of age, who present with dyspepsia or epigastric pain, nausea, vomiting, dysphagia, with or without weight loss to be promptly investigated by endoscopy, with biopsy of any suspicious lesion has been advocated.[9,10] In our context, the majority of gastric cancer patients present with locally or far advanced disease, where curative resection is not beneficial. The most common reason for diagnostic delay in gastric cancer is a period of symptomatic therapy with antacids or H2-receptor blockers often lasting months before referral for endoscopy is undertaken.

In gastric carcinoma, adequate surgical resection is the only treatment, which can offer a hope of cure or long term survival. Curative resection for gastric cancer means no peritoneal or hepatic disease, no serosal involvement, tumour-free resection margins and the resection level should exceed the nodal involvement level. When the resection level equals to nodal involvement, the resection is called relatively curative one.

The presentation of patients with gastric cancer at an advanced stage is a common clinical problem. Gastric resection is usually not attempted in advanced gastric carcinoma for fear of high morbidity and mortality. However, sufficient evidence has now accumulated to support the role of tumour resection as the minimum surgical procedure to achieve significant palliation.[4-8] It is worth stressing that a patient without symptoms cannot be palliated. There must be good reasons to believe that significant symptoms are imminent. In our series, 3/4th of the patients had abdominal pain and half of the cases had vomiting. The other symptoms like dyspagia and bleeding which commonly call for surgical palliation.

RPS aims at a procedure where the primary tumor is removed completely and there is no residual tumor at the site of anastomosis. Most of the growths arise in the antrum and distal subtotal gastrectomy, when possible, is the treatment of choice. There are host-related factors that affect survival
in far-advanced gastric cancer and the type of surgery can have a significant effect on prognosis.[8] Conservative palliative procedures are those where the primary tumor is not removed.Conservative bypass leaving the tumour in situ usually does not benefit the patient and carries a high operative risk. CPS may be worth while in an individual case[11], but taking a series as a whole give no survival benefit over doing nothing as in our series. Moreover, there is no point of doing any palliative procedures in case of peritoneal dissemination.[12]

The improvement in surgical and anesthesiological techniques have allowed a reduction in oncological surgical morbidity and mortality. Appropriate palliative surgery is selected only after thorough assessment of symptoms, general medical condition and the extent of the disease. The selected patients with carcinoma of the cardia, a palliative resection can be achieved with an acceptable mortality and a very good functional result. In case of gastric carcinoma with liver metastasis, palliative gastrectomy is not beneficial in terms of survival as well as QOL.[13] However, gastrectomy may be beneficial in selected patients presenting with potentially lethal complications such as bleeding and obstruction. The median survival in resected group is 12 months and is shorter (3 months) in nonresected group[14], which is consistent with our relatively smaller data.

Insertion of a self-expanding metal stent can provide palliation in patients with inoperable gastric outlet stenosis due to malignant tumours.[15,16] Similarly, the esophageal intubation for palliative treatment in advanced carcinoma of the esophagus and cardia is useful. Moreover, endoscopic laser therapy for palliation in esophageal and cardial cancer is promising.[17] Satisfactory results can be obtained in palliative endoscopic laser therapy for complications of advanced gastrointestinal cancers.[18]

Conclusions

Irrespective of age and sex, all patients with dyspepsia require full investigation including endoscopy to establish the diagnosis before treatment of any sort is initiated. Palliative resection in locally advanced gastric cancer is safe and should always be attempted to improve the QOL.

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