ADENOCARCINOMA STOMACH

A REVIEW OF 168 CASES

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ABSTRACT

Medical records of 168 patients with gastric adenocarcinoma treated at Malignant Diseases Treatment Centre, Command Hospital (SC) Pune over a ten year period were analysed. Laparotomy was performed in 146 patients; in 82 patients a gastric resection was done, palliative gastrojejunostomy was done in 42 patients, while in 22 patients only a diagnostic biopsy was done. The resection was considered to be curative in 21 patients. Overall operative mortality was 12.3%. According to the international TNM Classification 16% patients were in Stage I, 13.7% in Stage II, 34.3% in Stage III and 35.8% in Stage IV. A significant correlation was found between five year survival rate and overall stage of disease as well as regional lymph node involvement ($p < 0.001$). Significantly better survival rates were seen in those who had curative resection as opposed to palliative resection ($p < 0.01$). Overall survival rate at five years in our patients was 8.3% this poor outcome was probably related to the advanced stage of disease at presentation.

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Introduction

Cancer of the stomach ranks eighth in the overall sitewise distribution of all cancers with the highest incidence being reported from Japan [1,2]. The commonest sites of lesion in the stomach are the pylorus and antrum (50%). Adenocarcinoma has been the histological type in over 90% of stomach cancers. Despite increasing use of fiberoptic endoscopy, most cases still present in advanced stages [3,4]. Five year survivals are between 7-10% [3,5]. The aim of this study was to evaluate the results of management of gastric adenocarcinoma at our centre.

Material and Methods

Case records of 168 patients of histologically proved adenocarcinoma stomach treated over a ten years between 1975-1985 were studied. The case study proforma included details of age, sex, religion, domicile, clinical features, duration of symptoms and

stage of disease as per International TNM Staging System for cancer stomach [5]. Staging was done after a careful study of operative findings and the histopathology report. The nature of surgical treatment given was recorded and operative mortality assessed. Different prognostic factors were studied for their impact on five year survival. These included site and size of tumour, status of regional lymph nodes, the overall stage of disease and the type of gastric resection carried out. Statistical analysis was done using Chi-Square tests [6] with Yates correction. A p value less than 0.05 was considered significant.

Results

Of 12,721 admissions for cancer at our centre over ten years (1975-1985), gastric adenocarcinoma was present in 168 cases (1.3%). Mean age of patients was 45.3 years (range 21-80). Male to female ratio was 4.6 : 1. No

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racial or regional differences were noted in the incidence of gastric adenocarcinoma. 160 patients were followed up for two to ten years. The mean duration of symptoms prior to hospitalisation was 6.5 months (range 1 to 18 months).

The location of primary tumour and its relation with survival rate is shown in Table 1. Commonest location was in the antrum (53.4%) followed by cardio-oesophageal junction (20.1%). In 13 cases tumour involved more than one of the named locations in the stomach. No significant correlation was found between the location of tumour and five year survival.

The TNM Stage classification proposed by Kennedy in 1970 [5] was followed. 37 cases could not be staged due to lack of complete information. The stagewise breakdown of 131 cases is shown in Table 2. Statistically significant correlation was found between the five year survival rate and stage of disease ($p < 0.001$). One case was diagnosed to have early gastric cancer (T1 NO MO).

Histology of the regional lymph nodes was available in 82 cases. In only 20 cases, the lymph nodes did not show evidence of metastatic disease, and this group had a significantly higher survival ($p < 0.001$) (Table 3).

Twenty two patients presented with disseminated disease and were treated palliatively with chemotherapy or radiotherapy only. 146 cases underwent laparotomy, with a resection rate of 48.8% (82/168). Only 21 were considered to have had a curative resection (25.6%) while 61 (74.4%) were palliative. Survival rate was significantly better following curative resection (38%) as compared to palliative resection (9.8%) ($p < 0.01$). There was no significant correlation between type of gastrectomy and five years survival ($p < 0.5$) (Table 4). Forty two patients who were assessed to have unresectable disease and had features of gastric outlet obstruction were given the benefit of gastrojejunostomy. 22 patient had only a biopsy at laparotomy. Overall operative mortality was 12.3% (18 cases). Of these 18 postoperative deaths, 7

TABLE 1
Site of primary and 5 year survival

Site	Cases		Survival	
	n*	%	n*	%
CO Junction	32	20.1	3	9.3
Fundus	16	10.0	0	0
Body	14	8.8	2	14.2
Antrum	85	53.4	9	10.5
Diffuse	13	7.5	0	0

n* - number of cases, $p > 0.1$

TABLE 2
Stage of tumour and 5 year survival

Stage	Cases		5 yr survival	
	n*	%	n*	%
I (T1, T2, T3 N0 M0)	21	16.0	11	52.3
II (T4 or N1 M0)	18	13.7	1	5.5
III (Any T N2 M0)	45	34.3	0	0
IV (Any T Any N M1)	47	35.8	0	0

n* - number of cases, $p < 0.001$

TABLE 3
Nodal status and 5 years survival

Status	Cases		Survival	
	n*	%	n*	%
Positive	62	75.6	5	8.06
Negative	20	24.4	9	45.00

n* - number of cases $p < 0.001$

patients had undergone a gastrectomy and 11 had only a gastrojejunostomy or biopsy performed. There was no significant correlation between extent of operation and operative mortality ($p < 0.1$) Overall five year survival rate was found to be 14/168 (8.3%).

Discussion

Most published series report poor survival figures in stomach cancer, with the five year survival varying between 7-10% [3,5,8] with upto 54% of all cases having surgically incurable lesions at laparotomy [9]. Review of our data indicates that the proportion of early, curable gastric cancers being operated has not increased despite increased use of fibroptic

TABLE 4

Type of resection, operative mortality & 5 year survival

Operation	Cases		Mortality		Survival	
	n*	%	n*	%	n*	%
Subtotal distal gastrectomy	59	71.9	3	5.0	11	18.6
Oesophago gastrectomy	12	14.6	2	16.6	2	16.6
Total gastrectomy	7	8.5	1	14.4	1	14.2
Extended gastric resections	4	4.8	1	25.0	0	0
			p > 0.1		p > 0.5	

endoscopy. Less than one half of our patients came up for resection and of these only a quarter were considered curative. These figures are not likely to change until fibreoptic endoscopy becomes a screening procedure rather than a diagnostic one, as the Japanese experience has shown [7]. The overall operative mortality of 12.3% was related more to the stage of disease rather than the extent of operation in this series, as in others [3,8-10].

Prognosis depends upon the overall stage of disease at presentation especially the status of regional lymph nodes. It has been observed that prognosis is related to the location of primary tumour in the stomach, with more distal lesions faring better than proximal ones [10]. In our study, we could not establish this correlation with statistical significance.

It has also been recorded by previous workers that extended resection (which include resection of neighbouring organs —spleen, pancreas, colon, ileum or retroperitoneal nodes etc.) are associated with higher operative mortality and do not prolong survival [3,8,10]. In this series, the number of extended resection carried out is too small to permit us to draw any meaningful conclusions in this regard. However, the consistency of certain prognostic factors justifies a surgical approach in which extended resections are only selectively employed. Adjuvant radiotherapy and chemotherapy are of value in certain situations and the indications for their

usage are now being better defined [1]. In our own series these modalities were used only in very few cases and no comment can be made regarding their use. Till such time these modalities (radiotherapy and chemotherapy) are more freely available, surgery will continue to be the main treatment. All efforts need to be made to achieve earlier diagnosis.

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