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Original Research Paper

Gastroenterology

PERITONEAL METASTASIS IN GASTRIC CANCER- IS IT WORTH A RESECTION?

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ABSTRACT

To analyse the outcome and Quality of Life of Palliative Subtotal Gastrectomy in patients with Peritoneal metastasis.

Methods: Retrospective analysis of patients operated in Villupuram, a small town in South India. All patients who had peritoneal metastasis alone are taken into this study.

Results: 36 patients who underwent Palliative resection were studied at 6 months and 12 months using FACT Ga scoring for Quality of Life. We had statistically significant Quality of life in all the patients.

Conclusion: In low Socio economic status people and Most backward towns most of the Gastric Cancer patients present very late and wherever possible Gastric Cancer patients with Peritoneal metastasis must be resected. Palliative resection is definitely beneficial.

KEYWORDS :

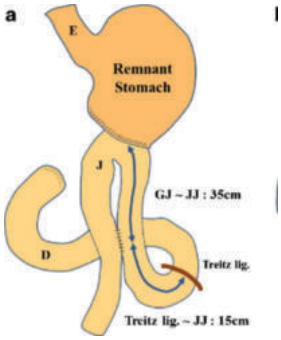
Introduction:

South India is a high endemic area for Gastric cancer. Gastric Cancer is the second common cause of cancer related death world wide[1]. Especially interior town like Villupuram in South India is full of Low socio-economic status people and Most Backward People with low literacy rate and medical awareness. Our hospitals are high-volume centre for Gastric cancer screening and surgery. Around 50%- 60% patients present only as Locally advanced or metastatic cancer on Investigations. In this Retrospective study, we are going to discuss the results of patients who presented with peritoneal metastasis during surgery. Various studies [2,3,4] have shown survival benefit from palliative resection inspite of such Peritoneal seedlings. Patients with inoperable or metastatic disease usually die within 12 months with or without salvage chemotherapy [5,6] . In this study we have found good QOL improvement with palliative resections for patients with peritoneal seedings. Peritoneal dissemination is difficult to diagnose most of the times before surgery. In around 10% to 20% of patients with peritoneal seeding are discovered at the time of operation.[7,8,]

Materials and Methods:

This study is a retrospective analysis of patients operated for cancer stomach in Villupuram medical College, RRM Gastro Superspeciality Clinic and ES Hospital from 2015 January to 2017 December. We had around 81 cases detected in this period of two years. Of them 40 cases were found to be operable and D2 Resection done as per AJCC guidelines. Of the remaining 41 patients- 3 patients who had Liver metastasis[9] and 2 patients with Proximal Gastric cancer with peritoneal mets were excluded from study as they were sent for Palliative Chemotherapy directly without any surgery. This Study is about the remaining 36 cases for whom we did palliative Distal Gastrectomy. **All the 36 cases had metastasis in Peritoneum and with added minimal ascites in 15 cases**. All the 36 cases metastasis from Peritoneum are sent for Histopathological confirmation in a separate container. The 15 cases with ascites were sent for Cytology from the Fluid. All of them were sent for Palliative Chemotherapy Cisplatin with 5- Flourouracil for 6 cycles after 14 days of surgery. Patients who had better general condition were given Epirubicin also. All the patients were kept on follow up for minimum of 1 year and results studied. In the 6 month and 1 year follow up we studied the Quality of life using FACT Ga[10] system.

All the 36 patients were operated Under General Anaesthesia with Epidural Catheter inserted for Intraop and Post op Analgesia for 3 days. All the cases are opened by a Long Midline incision and Thorough laparotomy done for peritoneal secondaries. Minimum three tissues are taken for Biopsy from suspected peritoneal secondaries in all 36 patients, and Ascites in 15 patients were sent for Cytology. Later we confirmed in all 36 patient peritoneal adenocarcinoma secondaries from the Pathologist. Among the 15 Ascites fluid analysed patients- we had cytology positive for malignancy in 7 cases only, others seemed to be Nutritional Ascites. The procedure started with assessment of any pancreatic infiltration and if there is no infiltration, part of greater omentum with lesser omentum mobilised. Right Gastro Epiploic Vessels and Right Gastric Vessels are ligated and cut. In none of the case Short gastric or Left Gastric Vessels Ligated. With at least 2 cm clearance we marked proximal point for transection. Duodenal Stump transected with TLC 60 mm Blue stapler in all Cases. Proximal Resection at lesser curve is done with TLC 60 mm Blue leaving behind the remaining half to be anastomosed hand sewn with a loop of Proximal Jejunum in a Billroth 2 Pattern as shown in the image (Figure 1)



All the Gastro jejunal Anastomosis done with Conventional 4 layer technique , all cases underwent Jejuno jejunal anastomosis to avoid future Bile reflux gastritis. Drain kept and all surgeries are completed in an average time between 2 to 3 hours maximum. All the specimens are sent separately for pathological study (Figure 2,3).All patients were admitted for 10 days and discharged on 11th POD after removal of all sutures. Drain is removed on 5th POD in all patients except one patient who developed Duodenal Leak. The duodenal leak settled in 15 days and no special precaution taken as the leak was only 50 ml initially and it settled with normal diet itself.

All Patients were started on Palliative Chemotherapy after 20 days in Oncology Department. Patients were provided with Cisplatin and 5-Flourouracil for 6 cycles. Patients who had better general condition were given Epirubicin also.

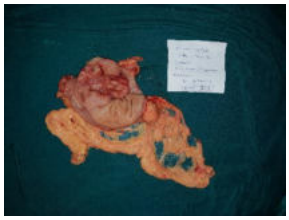


Figure 2

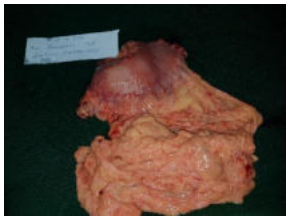


Figure 3

All patients were followed up at regular 2 weeks interval for any other complaints and we recorded their Quality of Life using FACT Ga score at 6 months and at 1 year. They are yet at follow up. Until 1 year, there was no mortality in any of our patient.

Results:

The FACT-Ga is the part of the Functional Assessment of Chronic Illness Therapy (FACIT) measurement system. Questionnaire of FACT -G is comprised of 4 general subscales: Physical well being(PWB), social well being (SWB), emotional well being(EWB), and functional well being (FWB). This FACT Score is used in many studies for chronic illness study. A special scale FACT Ga is used only for Gastric cancer patients to study the Quality of Life. FACT Ga(Figure 4) combines the FACT-G with a 19-item gastric cancer subscale as shown below:

Figure 4: FACT Ga scoring for Gastric cancer

ADDITIONAL CONCERNS	Not at all	A little bit	Some-what	Quite a bit	Very much
I am losing weight	0	1	2	3	4
I have a loss of appetite	0	1	2	3	4
I am bothered by reflux or heartburn	0	1	2	3	4
I am able to eat the foods that I like	0	1	2	3	4
I have discomfort or pain when I eat	0	1	2	3	4
I have a feeling of fullness or heaviness in my stomach area	0	1	2	3	4
I have swelling or cramps in my stomach area	0	1	2	3	4
I have trouble swallowing food	0	1	2	3	4
I am bothered by a change in my eating habits	0	1	2	3	4
I am able to enjoy meals with family or friends	0	1	2	3	4
My digestive problems interfere with my usual activities	0	1	2	3	4
I avoid going out to eat because of my illness	0	1	2	3	4
I have stomach problems that worry me	0	1	2	3	4
I have discomfort or pain in my stomach area	0	1	2	3	4
I am bothered by gas (flatulence)	0	1	2	3	4
I have diarrhea (diarrhoea)	0	1	2	3	4
I feel tired	0	1	2	3	4
I feel weak all over	0	1	2	3	4
Because of my illness, I have difficulty planning for the future	0	1	2	3	4

Above 19 factors are filled in the 36 surgery done patients. The normal score varies from 0 to 76. The score is taken preoperatively and at 6 months and at 12 months. Statistical analysis done for the total score and results derived.

S: No	Age	Sex	Presentation	Duration of Surgery (In minutes)	Immediate Post op events	Pre op Score	Follow up at 6 months Score	Follow up at 1 year Score
1	63	Male	Pain abdomen	125	Normal	32	64	60
2	56	Male	Pain abdomen	125	Normal	28	70	68
3	73	Male	Pain Abdomen	140	Normal	30	65	62
4	80	Female	GOO	145	Normal	20	68	60
5	36	Female	GOO	125	Normal	20	68	60
6	35	Female	Melena	100	Normal	18	59	62
7	45	Male	Melena	125	Normal	20	70	62
8	72	Male	GOO	120	DGE	22	72	63
9	63	Male	Pain abdomen	110	Normal	32	65	64
10	50	Female	Pain abdomen	115	Normal	34	64	60
11	43	Female	Hematemesis	120	Normal	22	60	58
12	55	Male	Early satiety	125	Duodenal Stump leak	36	58	55
13	85	Male	Early satiety	160	Normal	32	64	60
14	73	Female	Pain abdomen	160	Normal	28	66	60
15	62	Male	Pain abdomen	180	Normal	24	68	60
16	67	Male	Melena	185	Normal	24	70	62
17	66	Female	Pain abdomen	120	Normal	22	72	64
18	65	Female	Pain abdomen	120	Normal	26	72	66
19	45	Female	Pain abdomen	125	Normal	28	70	66
20	67	Male	Pain abdomen	135	Normal	32	70	66
21	71	Male	Pain abdomen	135	Normal	34	68	65
22	72	Male	Pain abdomen	140	Normal	37	66	60
23	62	Male	GOO	140	DGE	20	67	60
24	63	Female	GOO	145	Normal	32	68	60
25	65	Female	Melena	110	Normal	28	69	60
26	67	Male	Pain abdomen	110	Normal	32	71	68
27	42	Female	Pain abdomen	120	Normal	24	62	62

28	56	Male	Pain abdomen	135	Normal	22	66	62
29	54	Male	Pain abdomen	120	Normal	24	68	62
30	57	Male	Pain abdomen	125	Normal	23	63	60
31	79	Female	Pain abdomen	125	Normal	24	62	58
32	59	Female	Melena	150	Normal	32	64	60
33	67	Male	Melena	140	Normal	30	65	60
34	68	Male	Pain abdomen	120	Normal	32	68	60
35	59	Male	Pain abdomen	125	Normal	32	68	60
36	52	Male	Pain abdomen	135	Normal	30	62	60

Statistical Analysis

Sr. No	Variables	Scores, Mean + SD	t, p value
1	Quality of life before surgery	27.3 (5.2)	36.5, < 0.001
	Quality of life at 6 months	66.4 (3.6)	
2	Quality of life before surgery	27.3 (5.2)	34.3, <0.001
	Quality of life at 12 months	61.5 (2.8)	

From the statistical analysis we could see the p value is highly significant for comparison with QOL before surgery and at 6 months and at 12 months.

Conclusion:

Based on this small study we have concluded, there is definitely a benefit seen for all patients with peritoneal metastasis also when we do palliative resection of the primary. Removal of the tumor has been found to reduce the complications caused by the primary tumor and causes increases comfort of patients 12.

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