



A Comprehensive Study of Abdominal Malignancies Presenting As Surgical Emergencies

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Abstract

Background: Abdominal malignancies as surgical emergencies pose a serious problem for surgeons with respect to choice of curative and palliative treatment management in absence of opportunity for proper evaluation and support for multidisciplinary approach. There is a very high rate of perioperative mortality in oncological abdominal emergencies.

Materials and Methods: A Retrospective analysis of abdominal emergency surgeries done over a period of 1 year, June 2019 to May 2020 at king George Hospital Visakhapatnam and in them abdominal malignancies were studied with respect to the incidence, pattern of clinical presentation, management and outcomes.

Results: Excluding abdominal trauma cases, a total of 150 abdominal emergency surgeries were done in study period. Abdominal malignancies analysed were 15 of which 70% of cases were presented as obstruction and 30% of cases as perforation peritonitis. It was noted that colonic malignancies (47%) were the most common to present as emergency followed by gastric malignancies (20%), ovarian (13%) malignancies, small bowel (6%), Hepatobiliary (14%) Malignancies. Management approach was with palliative intent 73% and with curative intent is 27%. Overall mortality rate in study period is 24% and perioperative period (within 30 days) is 19%.

Conclusion: Surgical intervention appears to be unavoidable even knowing the morbidity and mortality rate is very high in abdominal malignancies presenting as surgical emergency. Surgery should both increase the survival and quality of life. This is difficult because these patients are frail, often malnourished and have a poor performance status. Early detection of the disease by screening is the solution for better prognosis of the patient.

Keywords: Abdominal Malignancies, Surgical Emergencies.

Introduction

Abdominal malignancies presenting as surgical emergencies pose a serious problem for surgeons. It causes difficulty in complete evaluation, staging of the disease, confirmation of malignancy, and

proper management. There is high rate of perioperative mortality as most of the malignancies present in quite advanced stage.

The extra abdominal emergencies are more common than the intra abdominal ones. Extra abdominal emergencies are commonly managed

effectively with medical management alone. A surgical intervention is commonly required to deal with abdominal malignancies.

Aims and Objectives

1. To know the incidence of malignancies in acute abdominal emergencies.
2. To identify the common malignancies in acute abdominal emergencies.
3. To study the patterns of clinical presentation of malignancies in acute abdominal emergencies.
4. To analyze the procedural interventions in management.
5. To know the prognosis of these patients in terms of perioperative mortality.

Materials and Methods

Study Type: A Retrospective analysis

Study Centre: Department of General surgery, king George Hospital Visakhapatnam

Study Period: 1 year, June 2019 to May 2020.

Study subjects: Abdominal Emergency Surgeries
 Abdominal malignancies were studied with respect to the incidence, pattern of clinical presentation, management and outcomes. Patient records, operative notes and histopathology reports were reviewed. Postoperative morbidity and mortality in the immediate 30 days was recorded.

Inclusion Criteria

1. Adult patients (above the age of 14 years)
2. Abdominal emergency surgery (intestinal obstruction, peritonitis, hemorrhage)
3. Histopathological report suggestive of malignancy

Exclusion Criteria

1. Pediatric cases (below the age of 12 years)
2. Elective surgeries and patients who were previously worked up suspecting such malignancies.

Results

Excluding abdominal trauma cases a total of 150 abdominal emergency surgeries were done in study period. A total number of 15 cases were diagnosed to have malignancy during the study period. The incidence of intra abdominal oncological emergencies was found to be 10% of total emergent presentations.

The number of male patients was 6 and the number of female patients was 9 (ratio 2:3)

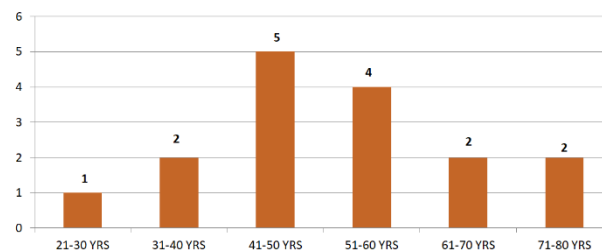


Figure 1: Age Distribution

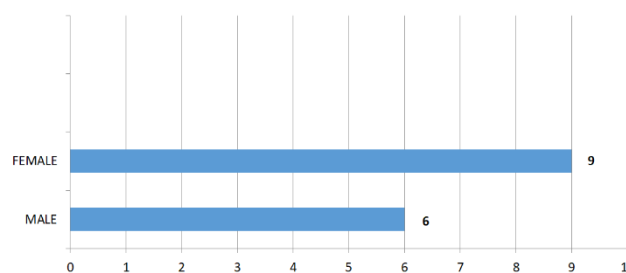


Figure 2: Gender Distribution

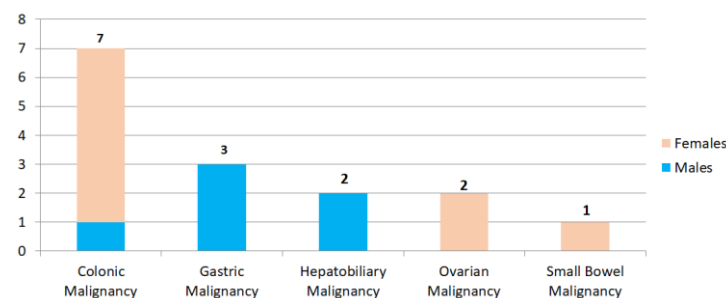


Figure 3: Gender Distribution of Malignancies

- Colonic malignancies (47%), Gastric malignancies(20%) were the most common to present as emergency
- Hepatobiliary malignancies (14%), Ovarian malignancies (13%), Small bowel malignancies (6%) were not common.

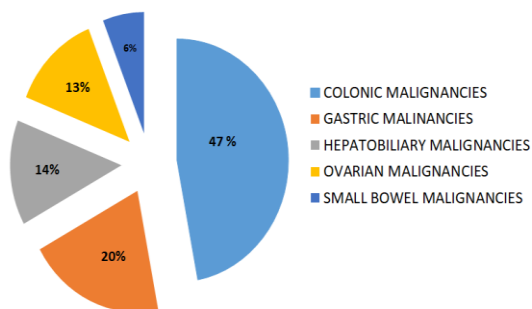


Figure 4: Oncological Emergencies by malignancy type

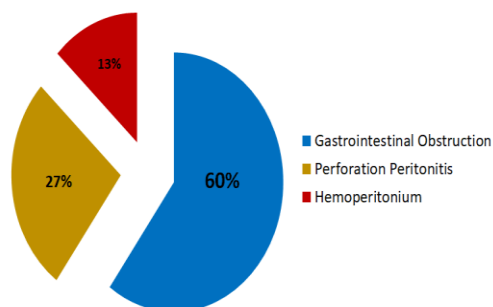
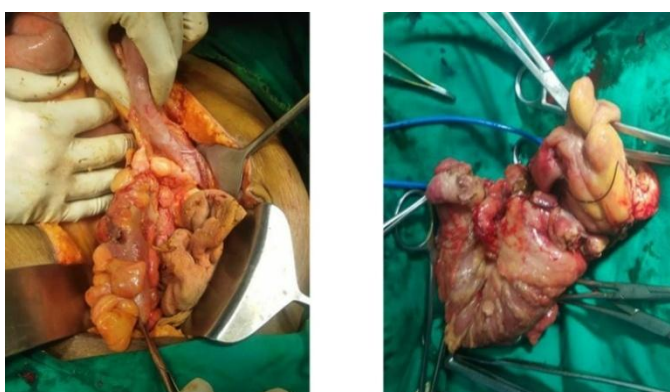


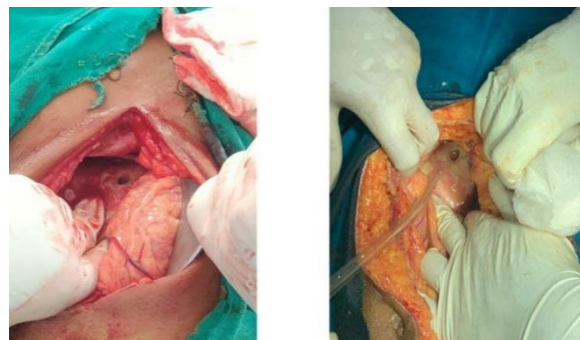
Figure 5: Clinical Patterns of Presentation



Photograph 1: Descending Colon Growth Causing Obstruction

Table 1: Modes of Presentation

Malignancy type	Gastrointestinal Obstruction	Perforation Peritonitis	Hemoperitonium
Gastric malignancy	1 (6.6%)	2 (13.3%)	-
Colonic Malignancy	6 (40%)	1 (6.6%)	-
Hepatobiliary Malignancy	-	1 (6.6%)	1 (6.6%)
Ovarian Malignancy	-	1 (6.6%)	1 (6.6%)
Small bowel Malignancy	1 (6.6%)	-	-

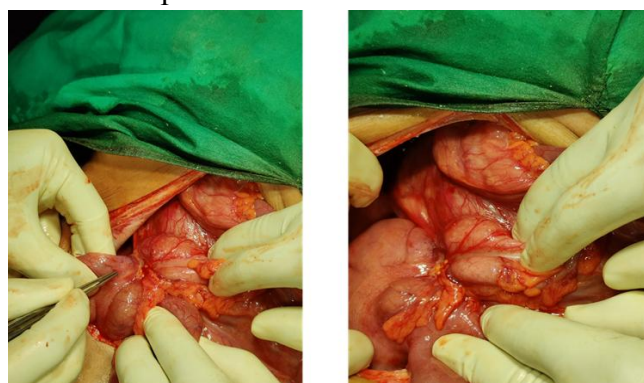


Photograph 2: Gastric Malignancies presenting as Perforation Peritonitis

Amongst the Colonic malignancies, the site was found to be caecum 3, sigmoid colon 2, rectum 1, Splenic flexure 1.

Obstruction (93%) was the most common emergency presentation in colonic malignancies and perforation (7%) was uncommon.

Out of 7 colonic malignancies 4 cases had resectable growth and 3 were unresectable. Among resectable cases 3 underwent primary resection and anastomosis and 1 case underwent Hartmann's procedure.



Photograph 3: Malignant Caecal Stricture causing Obstruction

Amongst gastric malignancies two cases presented as perforation peritonitis, one case of gastric outlet obstruction.

Amongst Hepatobiliary malignancies one case hepatocellular carcinoma was presented as hemoperitoneum, another case Ca gallbladder was presented as perforation peritonitis

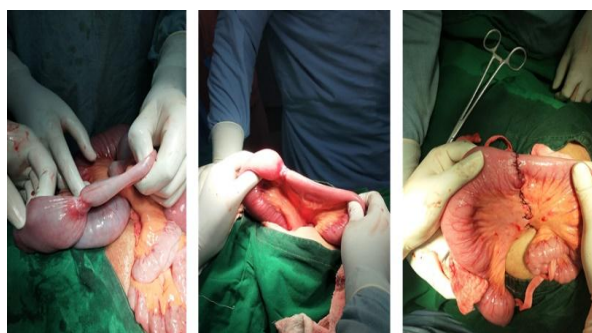
Amongst ovarian malignancies one case presented as hemoperitoneum and another case as perforation peritonitis invading and eroding sigmoid colon



Photograph 4: HCC presenting as Hemoperitoneum

Management

- Management approach was with palliative intent is 73% and with curative intent is 27%
- This shows the a significantly high proportion of advanced unresectable malignancies.
- Definitive curative approach were done mostly in colonic malignancies.



Photograph 5: Malignant Ileal Stricture causing Obstruction



Photograph 6: Perforated Carcinoma Gall Bladder as Peritonitis

Prognosis

- Overall mortality rate in study period was 24% and perioperative period (within 30 days) was 19%.
- Hypovolemic Shock, Septicemia, Sudden cardiac arrest and myocardial infarction were the causes of mortality observed in the study.

Discussion

Abdominal emergency in an advanced oncologic setting is defined as an acute life-threatening abdominal pathology in a patient with incurable cancer

Oncological surgery emergencies present a big challenge to surgeons. These operations are not only difficult but also carry a high morbidity and mortality.

Most of the malignancies today are managed after a proper diagnostic workup and discussion in a multidisciplinary tumour board and then going ahead with the best possible treatment modality.

But in an acute setting, the opportunity for a multidisciplinary discussion is often not available. Also, there are no clear guidelines of management available for management of these malignancies in acute scenarios.

Common presentations of oncological abdominal emergencies are intestinal obstruction, perforation peritonitis, hemoperitoneum.

The most common surgical presentation was gastrointestinal obstruction.

In this study the colon and gastric cancers were commonest to present with an incidence of 47% and 20% respectively.

We found a very high fraction of unresectable locally advanced disease (43.5%) which led to a resorting towards surgeries for palliative intent rather than curative intent

Patients with acute, life-threatening surgical conditions are often offered an operation as a life saving measure and our study finds that the majority of patients survive their hospitalization and the month after surgery.

Conclusion

Surgery is necessary in most of the cases even knowing that the morbidity and mortality rate is very high in abdominal malignancies presenting as surgical emergency.

Surgery should both increase the survival and quality of life. This is difficult because these patients are frail, often malnourished and have a poor performance status.

Overall intestinal obstruction and perforation peritonitis are two common clinical patterns of presentation in surgical oncological emergencies of abdomen

A high rate of perioperative mortality is observed in emergency presentations of oncological abdominal emergencies.

Early detection of the disease by screening is the solution for better prognosis of the patient.

cancer. *World J Surgical Oncology*. 2004;2:23.

References

1. Azri MH. Delay in cancer diagnosis: causes and possible solutions. *Oman Med J*. 2016;31(5):325-6.
2. Allgar VL, Neal RD. Delays in the diagnosis of six cancers: analysis of data from the National Survey of NHS patients: cancer. *British J Cancer*. 2005;92(11):1959-70.
3. Bosscher MRF, Leeuwen BLV, Hoekstra HJ. Current management of surgical oncologic emergencies. *PLOS One*. 2015;10(5):0124641.
4. Wayne JD, Bold RJ. Oncological emergencies, In *The M. D. Anderson Surgical Oncology Handbook*, 5th edition, Lippincott Williams & Wilkins, Philadelphia. 2011;564-580.
5. Kamiya U, Yuasa N, Oda S, Hayakawa K, Yokoi Y, Nimura. Treatment of recurrent cancer after surgery for biliary malignancies. *Nippon Geka Gakkai Zasshi*, 1999;100:195-9.
6. Gazzotti CF, Ansaloni L, Agrusti S, Cataldis AD, Taffurelli M. Emergency surgery for recurrent intraabdominal