

Colorectal non-inflammatory emergencies

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Introduction

- Colorectal cancer (CRC) is one of the most frequent cancers with more than one million people worldwide being diagnosed with CRC annually
- The presentation in 80 % of cases is on elective basis, about **15-20 %** present to ER
- Patients with complicated colorectal emergencies may have metabolic, cardiovascular, infectious or respiratory comorbidities. These conditions substantially increase mortality.
- Postoperative mortality was assumed as the first 30 days after the operation. Postoperative mortality was encountered to be around **30 %**.*

* Meyer F, Marusch F, Coch A, Meyer L, Fuhrer S, Kockerling F, et al. the German Study Group 'Colorectal Carcinoma (Primary Tumor)'
Emergency operation in carcinomas of the left colon: value of Hartmann's procedure. *Tech Coloproctol.* 2004;8:S226-9

Oncological Emergencies

- Presentation:
 - **1ry presentation** : with no previous history or
 - **2ry presentation** : its presence is known but it was complicated

Diagnosis and Management strategy

- Diagnosis in the emergency department is mainly clinical and radiological, but sometimes endoscopy can be feasible according to the patient condition.
- The management strategy depends upon the general condition of the patient (whether hemodynamically and metabolically stable or not i.e. shocked, septic, etc.).

Assessment of the general condition and preoperative preparation

- **Vital signs** were checked.
- Full clinical assessment.
- All patients were provided the routine preoperative preparations in the form of (**Drip & Suck**):
 1. Two wide bore IV lines for fluid transfer
 2. Taking blood samples for laboratory investigations and blood cross matching
 3. **ABG** to assess the metabolic status of patients
 4. Ryle tube insertion
 5. Urinary catheter insertion

Applying the strategy

- Patients whom were unstable either due to sepsis or dehydration or bleeding were initially properly resuscitated

Operative management

- Mid line exploration of the abdomen
- Identification of the site of the lesion/s
- Options of management included:
 1. Diversion only
 2. Resection and diversion
 3. Resection and primary anastomosis with / without covering stoma
 4. Frozen abdomen
- **Decision making**

Our work

- Patients were presented to the emergency department of Kasr Al-Ainy hospital, Cairo university during the period between October 2015 and August 2016.
- Patients who presented to the ER with colorectal emergencies were included

Our work

- We had **56** colorectal emergencies in 10 months; 40 were oncological while 16 were non-oncological.
- For the oncological group, we had 20 males and 20 females. For the non-oncological group, males were 10, while females were 6.
- Regarding the oncological group, the range of age: 25 – 82 year old with mean age 52 year old. While the range of age in the non-oncological group was 14 -75 year old with mean age 40 year old.
- 13 patients from the oncological group had co-morbidities (diabetic, hypertensive, cardiac, asthmatic or with another disease as myopathy). While only 2 from the non-oncological group had comorbidities

POC	Oncological emergencies	Non-oncological emergencies	P-value
Number of patients	40	16	
Range of age / year (mean)	25-88 (52)	14-75 (40)	0.053
Comorbidities	13	2	0.130

POC		Oncological emergencies	Non-oncological emergencies	P-value
Presentation	Obstruction	34	9	0.149
	Perforation	4	6	
	Bleeding	1	0	
	Atypical	1	1	
Procedure	Diversion	8	2	0.021
	Resection with diversion	16	7	
	Resection & anastomosis	13	1	
	Resection with anastomosis & proximal diversion	1	1	
	Primary repair	0	3	
	others	2	2	
	Morbidity	Leakage	5	1
Mortality		14	1	0.005

Outcome

- Morbidity:
 - Leaking anastomosis occurred in 5 patients
 - General complications:
 - Chest infection
 - Wound dehiscence +/- burst abdomen
 - sepsis
- Early Mortality: 14 patients
- 26 patients were referred to oncology for continuation of medical treatment.

Morbidity

- Leaking anastomosis occurred in 5 patients after resection of the tumour with primary anastomosis without a covering stoma:
 - 4 with right hemicolectomy and ileotransverse anastomosis
 - and 1 with extended right hemicolectomy and ileodescending anastomosis
- And all 5 cases did diversion with ileostomy and mucous fistula.

Mortality

- 11 cases with obstruction died. All these patients had associated comorbidities. 9 died from sepsis and 2 from myocardial infarction in the ICU.
- 2 cases of the perforated viscous with obstruction:
 - One of which was asthmatic and died from respiratory failure (1ry presentation with a comorbidity)
 - The other one had history of ovarian carcinoma, presenting with fecal peritonitis and died from sepsis (2ry presentation with bad general condition).
- And 1 case died from irreversible shock due to severe bleeding per rectum. This patient was also diabetic, hypertensive and cardiac. Also had metastasis i.e. advanced disease. (2ry presentation with a comorbidity)

Non-oncological group presentation

- Presentation:
 - 9 patients presented with intestinal obstruction
 - 6 patients presented with perforation
 - 1 patient presented by right iliac fossa pain

Findings

- Findings:
 - 10 patients with intestinal obstruction:
 - 8 patients had sigmoid volvulus (4 were elder and **4 young patients**)
 - 1 patient presented with Ogilvie's syndrome (diabetic)
 - 1 patient had internal hernia through the sigmoid colon mesentery
 - 6 patients had trauma
 - (3 endoscopic trauma, 1 stab, 1 gun shot and 1 impalement)

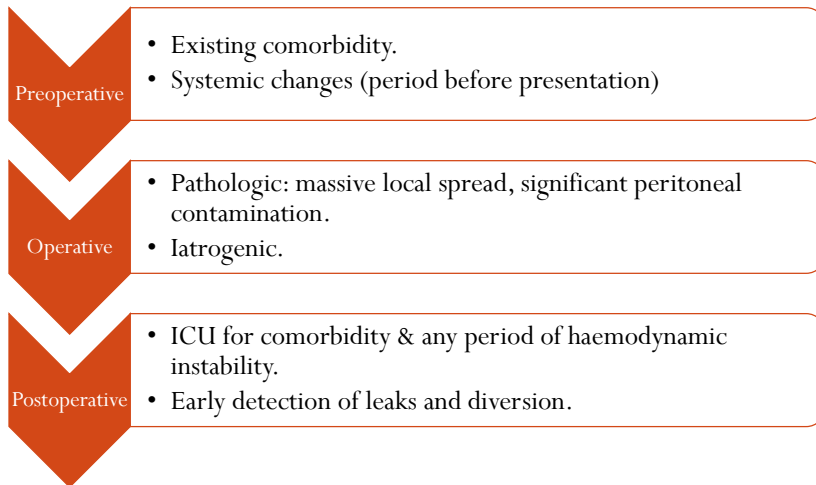
Surgical procedure

- Diversion: 2
- Resection with diversion: 7
- Resection with primary anastomosis: 1
- Primary repair: 3
- Primary repair with proximal diversion: 1
- Endoscopic untwisting followed by laparoscopic resection and primary repair: 1
- Conservative management: 1

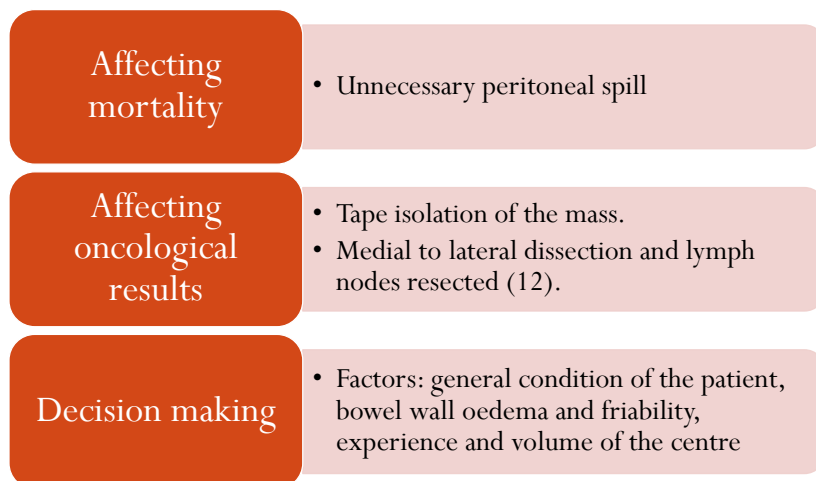
Outcome

- Morbidity:
 - Leaking anastomosis occurred in 1 patient → diversion
- Mortality:
 - One patient presented with internal hernia died due his late presentation, associated comorbidity and finally sepsis.

Factors affecting outcome



Operative iatrogenic factors.



Conclusion

- Regarding the outcome at the emergency level not the oncological level:
 - The comorbidities affect the outcome directly. The more the comorbidities the worse is the outcome. It increases the early mortality.
 - The presenting general condition affects the outcome. The impaired hemodynamic and metabolic status directly affects the outcome and increases the mortality.
 - The stage of the disease affects the outcome. The more advanced the stage the worse is the outcome specially with already diagnosed patients with carcinoma and presenting with its complication (2ry presentation).

THANK YOU