

ASSESSMENT OF SURGICAL OUTCOME OF LAPAROSCOPICALLY ASSISTED ABDOMINO-PERINEAL RESECTION FOR ANORECTAL CANCER in ZAGAZIG UNIVERSITY HOSPITALS

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Introduction

- Mile's description of abdominoperineal resection of a low rectal tumor in 1908 was a landmark in the history of colorectal surgery.
- Laparoscopic abdominoperineal resection (LAPR)
 - was first described by Sackier in 1992. Then,
 - Decanini and associates in 1994 have documented
 - the feasibility of an oncologic LAPR.

Indications of APR*

- •Patient unsuitable for bowel reconstruction
- •Preoperative history of incontinence
- •High risk of anastomotic leak
- •Patient preference
- •Tumor extending less than 1 cm from dentate line (T2–T4 cancer)
- •Tumor threatening CRM
- •Locally advanced cancer
- •Perforated cancer with abscess or fistula in ischioanal compartment *Holm T. (2014): Controversies in Abdominoperineal Excision. Surg Oncol Clin N Am (23):93–111.

Aim of the study

 Our study is concerned about assessment of feasibility, advantages and short term surgical and oncological outcomes of laparoscopic abdominoperineal resection (LAPR) for low seated rectal and anal cancer at Zagazig University hospitals.

Patients and Method

• This clinical trial was prospectively conducted during the period from

November 2015 to November 2017 on 15 patients presented with low rectal

and anal cancer to the outpatient clinic of Zagazig University Hospitals

after Faculty IRB approval.

Inclusion Criteria

1- Patient proved to have low rectal and anal cancer not

candidate for low anterior resection admitted to general

surgery department, Zagazig University hospitals.

2- Age: up to 70 years.

3- Patient fit for laparoscopic surgery.

4- Patient consented to do the procedure.

Exclusion criteria

- 1- Tumors high from anal verge candidate for anterior resection.
- 2- Patient with distant metastasis except liver Mets.
- 3- Contraindications of laparoscopic surgery e.g.

Significant Cardiovascular Comorbidities.

4- Emergency cases admitted to emergency unit i.e. obstructed or perforated tumors.

All patients were subjected to history taking,

general and Abdominal examination including DRE and PV.

• Complete blood count, kidney and liver function tests, random Blood glucose level, Prothrombin

time and concentration, INR and Serum CEA

were done.

• Imaging investigations included:

>CT scan of the abdomen and pelvis with IV& oral

contrast.

Pelvic MRI

CT Chest



Colonoscopic examination and biopsy preoperatively.

 Informed consent was taken from all cases to do APR and permanent colostomy.

• All patients were given preoperative antibiotics and appropriate DVT prophylaxis.

Operative details 1- patient position



2- Trocars insertion :



3- Abdominal part :



• Then division of colon with endo GIA stapler.

- After completeness of the abdominal part patient position is modified to lithotomy position then after prepping and drabbing of the perineum we started the perineal part of the operation.
- Then delivery of the specimen through the perineum and colostomy fashioning .











Table (1) Demographic characteristics of the studied group

Demographic characteristics	Studied grou	p N = 15
Age (years)	33-62	
Range Mean ± SD	45.06 ± 8.66	
Gender	Ν	%
Male	9	60 %
Female	6	40 %

Table (2): operative data

Operative data	Studied group N= 15	
Operative time (minutes)		
Range	210-420	
Mean ± SD	302.66 ± 58.2	
Blood loss (C.C)		
Range	250-600	
Mean ± SD	428± 112.9	
Blood transfusion	N=3 (20%)	
Conversion	Ν	%
	3	20%
Yes	12	80%
No		

Table (3): Operative recovery

Postoperative recovery	Studied group N = 15		
Hospital stay (days)			
Range	3-15		
Mean ± SD	5.53 ± 3.74		
Colostomy function and Postoperative			
oral intake(days)			
Range	1-5		
Mean ± SD	2.6 ± 1.4		
Postoperative ileus	Ν	%	
Yes No	2 13	13.33% 86.66%	

Table (4): Complications

Operative and postoperative	N (%)
complications	
Chest infection	
Yes	1 (6.67%)
No	14 (93.33%)
Surgical site infection (perineal	
wound infection)	
Yes	3 (20%)
No	12 (80%)
Stoma complications	
Yes (Stomal gangrene)	1(6.67%)
No	14 (93.33)%
Urogenital complications (pelvic	
nerves affection):	
- Urinary incontinence	1 (6.67%)
- Impotance	1 (6.67%)
Short term surgical course within	
6 months:	
- Readmission rate	1 (6.67%)
 local recurrence 	1 (6.67%)
 Port site metastasis 	0 (0%)
- Distant metastasis	1 (6.67%)

Table (5): pathological data

Pathological results	Studied group N = 15	
<u>Lymph node status</u> : A- Lymph node number per specimen (in all patients n = 15) Range Mean ± SD		4-18 10.3 ± 4.8
 B- Lymph node number according to neoadjuvant therapy: Neoadjuvant group (n=5) Range Mean ± SD Non neoadjuvant group (n=10) Range Mean ± SD C- Patients with malignant LN infiltration	4-6 4.4±1.14 10-18 13.3±2.63 9 (60%)	
Distant of tumor from anal verge (cm) Range Mean ± SD	1.5-6 cm 3.9± 1.38	
Tumor size (cm) Range Mean ± SD	2 - 6 cm 3.93±1.25	
Pathological stage Stage I Stage II Stage III Stage IV	N 0 6 9 0	(%) 0% 40% 60% 0%

positive circumferential resection margin (< 2	2	13.33%
mm)		
Proximal and distal resected margins		
Free	15	100%
Involved	0	0%

Conclusion

Laparoscopic APR can be performed with good technical efficiency, quick recovery of bowel function, and mild disability, less operative blood loss , less operative trauma and shorter hospital stay, but at expense of long operative time.

