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Surgical outcome in patients treated with stapled hemorrhoidectomy.

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ABSTRACT:

AIMS AND OBJECTIVES : To study the surgical outcome of stapled hemorrhoidectomy and compare it with open hemorrhoidectomy in patients presented with grade 3 and grade 4 hemorrhoids

MATERIALS ANS METHODS: 80 patients were admitted for surgical treatment of prolapsing hemorrhoids in GMC JAMMU were randomly assigned to open[n=40] and closed[n=40].All patients received standardised preoperative /postoperative analgesic and laxative regimes.visual analog score were used as the primary outcome measure.secondary outcome measure included;
1) Operative time

2) Post operative complications

3) Hospital stay duration

4) Time to first bowel motion.

STUDY DESIGN:RANDOMISED CONTROL STUDY

PLACE AND DURATION : DEPARTMENT OF GENERAL SURGERY GMC JAMMU DURING 1 JUNE 2021 TO 30 JUNE 2022

RESULTS: Stapled procedure for hemorrhoids is associated with earlier return to normal activity and significant improvement in post operative pain control ,also the duration of hospital stay and operative time was shorter in case of stapled haemorrhoidectomy

CONCLUSION : Stapled haemorrhoidectomy is safe and effective with less complication as compared to open hemorrhoidectomy and less recurrence rate as compared to open technique

KEYWORDS : stapled haemorrhoidectomy, open haemorrhoidectomy,grade3 and grade 4 hemorrhoids,

INTRODUCTION : Hemorrhoids(bleeding piles) are the commonest anorectal problem attending to surgical OPD. The pathological changes in cushion of vascular tissue in anus leads

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to the formation of hemorrhoids. The common presentation of hemorrhoids are;bleeding, mucus discharge, pain and something coming out per rectum which may be symptomatic or asymptomatic.Surgical treatment has been reserved for grade 3 and grade 4 hemorrhoids. In contrast to the traditional approach of removing hemorrhoid tissue by MILIGAN MORGAN(open technique) and FERGUSON(closed technique),the stapler hemorrhoidectomy designed by DR ANTONIO LONGO involves excision of a circumferential ring of mucousa three to four centimeters above the dentate line using a circular stapler which by interrupting the superior hemorrhoidal vessels decreases the blood supply to hemorrhoidal tissue leading to their shrinkage.

Stapler hemorrhoidectomy also known as stapler rectal mucosectomy has emerged as a painless alternative technique. It dramatically decreases the level of post operative pain and hastens the speed of healing after operation. The aim of this study compares the surgical outcome of patient by stapler and open hemorrhoidectomy in terms of post operative pain, hospital stay, early return to work, with or without complications for grade3 and grade 4 hemorrhoids.

CLASSIFICATION OF HAEMORRHOIDS : It has been Classified as , haemorrhoids Originating above the Dentate Line Is Know As Internal haemorrhoids and They are Covered By mucosa. Those Originating Below The Detate Line are Called as External Hemorrhoids covered by Squamous Epithelium. Sometimes a Patient may Present With both Internal And External haemorrhoids Which are termed as mixed Interno-External hemorrhoids. For Practical Purposes, the following Golighers Classification Of Internal Hemorrhoids Is Being Used:

(1) Grade I: Bleeding cushions without prolapse.

(2) Grade II: The anal cushions gets Prolapsed On Straining through anus but reduces.

(3) Grade III: Prolapsed cushions that are replaced manually.

(4) Grade IV: Prolapsed Cushion and are Irreducible, also Include Thrombosed and Incarcerated Internal Hemorrhoids even those Involving the Circumferential rectal Mucousa.

Hemorrhoids are also Classified ss Primary and Secondary. Primary Hemorrhoids are those Occurring In 3, 7, 11 Clock positions above Dentate line and non prolapsed one. But it Is not a Widespread Classification . Disadvantage Of Golighers Classification Is exclusion Of Skin Tags Which Can Become Sypmtomatic and Present As Swelling ,Chronic Inflammation Lead To Fibrosis Of the Skin Tag that Cannot be reduced because Of absence Of mucosal Component.

AIMS AND OBJECTIVES:

1) To study the surgical outcome of stapled hemorrhoidectomy and compare it with open technique in patients presented with grade3 and grade4 hemorrhoids.

2) To analyse short term complications of stapled hemorrhoidectomy and to compare with conventional open technique.

MATERIALS AND METHODS:

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This study was a randomised control study conducted in Department of General Surgery GMC Jammu from 1 june 2021 to 30 june 2022. Sixty patients were included in the study having grade3 and 4 hemorrhoids(based on proctoscopy findings) were subgrouped into stapler(n=30) and open(n=30).

INCLUSION CRITERIA :

Patients with grade 3 and grade 4 hemorrhoids.

EXCLUSION CRITERIA :

1) Thrombosed external hemorrhoids

2) Previous anorectal surgery

3) Anal stenosis,fissure,fistula,abcesses

4) Rectal prolapse

5) Derranged coagulation profile

Informed written consent was taken from all patients and were properly educated about the nature of surgery,nature of complications,potential benefits and the type of surgery to the patient underwent was according to choice of patient and affordability.

Various parameters which were compared between the two groups were;

1)Duration of sugery.

2Intra operative and post operative bleeding.

3)post operative pain.

4)post operative analgesic requirement.

5)urinary retention.

6)Anal incontinence.

7)Time to first post operative bowel motion.

8)Tenderness on per rectal examination at discharge.

9)Duration of hospital stay.

10) Cost of treatment .

PRE OPERATIVE EVALUATION :

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- This includes a detailed medical history,physical examination,proctoscopy/sigmoidoscopy and routine laboratory tests in all patients.
- Patients over 40 years underwent cardiologic evaluation preoperatively as a routine in our hospital.
- Patients should ideally be put on high fibre diet and stool softeners for several days prior to procedure.
- Lactulose taken for four days prior to hemorrhoidectomy reduces post operative pain.
- Enema on the day of operation.
- Prophylactic antibiotic at induction.
- Anesthesia; spinal or GA.
- Position; lithotomy position.
- Skin prepared; perineum and anal canal.
- Surgeon sits facing the perineum.
- Various parameters were noted and compared intraoperatively and postoperatively.

Pain scores were measured using visual analog scale where score of zero represents no pain and score 10 represents the worst unbearable pain. Analgesics was administered to keep pain score below 3 or 4.

RESULTS:

- Total 60 patients were included in the study 30(open) ,30 (stapled)
- The follow up period was minimum of 1 month and maximum of 1 year.
- The commonest complain in the study was bleeding Per rectum, the other complaints are pain, constipation, itching, and mass coming out per rectum.
- The preoperative bleeding which was measured in terms of number of soaked gauze peices were significantly lower in stapled group[10 ml] as compared to open group[40 ml].This was statistically significant with p value <0.001 as per whitney test
- Duration of surgery was also significantly lower in stapled [25 minutes] compared to open group[35 minutes].This was statistically significant with p value <0.001.
- The postoperative pain calculated using visual analog scale indicates that stapled group experienced lesser pain as compared to open group therefore lesser need for analgesics in stapled group of patients
- The time taken for the patients to first postoperative defecation was statistically significant lower in stapled group[12 hours] as compared to open group[29 hours] with p value <0.001
- The postoperative hospital stay was significantly lower in stapled group as compared to open group with overall satisfaction level higher in stapled group.
- At 1 month mucoid discharge and pain at defecation was significantly higher in open group compared to stapled group.

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At 1 year no statistical significance in complications were found between two groups.

COMPLICATIONS:

EARLY:

- Hemorrhage .
- Acute urine retention.
- Constipation with pain resulting in fecal impaction.

LATE:

- Anal stenosis /incontinence.
- Fissure.
- Skin tag.
- Recurrence.

DISCUSSION :

- Stapled hemorrhoidopexy procedure invented by Dr Antonio Longo is a novel technique which is less invasive and less painful than the open procedure.
- In our study we observed that the time taken to perform surgery was significantly shorter in SH group [40 min] than in open group[50 mins] with p value<0.001.similar observations were reported by DANIEL R etal in his study[A prospective study in tertiary hospital in southindia in 2017]
- Also it was observed that intraoperative bleeding was around (5-10 ml)approximately in stapled group as compared to (38 ml) approximately in open group. Similar observations were made by Dr Mohan etal in his study surgical outcome in patients with stapled hemorrhoidectomy.
- In our study we reported that SH group causes less postoperative pain as compared to open procedure, Bhandari etal . Kim Js etal and Daniel etal also noted similar results with statistically significant difference[p value <0.001]. Reason possibly could be due to lack of nerve endings above dentate line.
- Also postoperative hospital stay was comparatively less for stapler group than open group,same results were observed by Daniel etal[2017],RS bhandari etal[2015] . However Mehigon BJ etal2000] found no statistically significant difference for stapled group
- With regards to recurrence we had recurrence in 5 percent of participants in stapled group and in 2 percent of participants in open group,however it was not statistically significant

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p value 0.556.similar conclusion is drawn by Giordano P etal [2009] and cited it as a drawback of stapled hemorrhoidectomy.

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- . Our study supports the findings of shorter hospital stay in patients undergoing stapled hemorrhoidopexy as reported by Tjandra JJ et al, Laughlan K et al, and Khan NF et al.
- The need for oral medication was double in the open group as compared to stapled group and the need for IV injections was nearly thrice. This is similar to studies by Tjandra JJ et al and Shalaby R et al.

LIMITATIONS:

- Although the present study is prospective, one of the limitations was lack of Randomization and blinding. Despite the limitations ,the present hospital based study provides comparison between stapled hemorrhoidectomy and open hemorrhoidectomy in their outcomes and postoperative complications.

CONCLUSION:

- The present study has observed the advantages of stapler hemorrhoidectomy procedure with less operating time, less intra and postoperative bleeding, less postoperative pain possibly leading to early recovery and early discharge with patients perceived satisfaction regardless of other complications.

Specialist could readily and safely adapt this technique and offer this option to patients.

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