



ORIGINAL RESEARCH PAPER

General Surgery

A STUDY ON OUTCOME OF CHIVATES TRANSANAL SUTURE HEMORRHOIDOPEXY.

KEY WORDS:

Hemorrhoidopexy; Hemorrhoids; Suture technique, transanal, complications.

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ABSTRACT

Background: A prevalent medical problem, haemorrhoids affects 4 to 36% of the Population. Haemorrhoids' primary vascular contribution comes from the superior rectal artery and middle hemorrhoidal artery's terminal branches of the internal hemorrhoidal plexus. Various treatment modalities for haemorrhoids have been described, such as diet modification and laxatives, medication (steroids, local anaesthetic and dietary supplements), medical procedures (rubber band ligation, foam sclerotherapy, stapled haemorrhoidopexy, laser haemorrhoidopexy, IRC) **Aims & Objectives:** To assess the outcome of chivates trans anal suture hemorrhoidopexy. **Methodology:** A cross-sectional study was conducted among 50 cases who undergoing chivates trans anal suture hemorrhoidopexy at Department of General surgery, New Civil hospital, Surat. **Results:** The mean age of study participants was 33.5 + 5.7 years. Total 32(64%) cases were belonged to 31-40 years of age group. Out of total, 38(76%) cases were males and 12(24%) cases were females. Among the study participants, 20(40%) cases had grade III and 30(60%) cases had grade IV hemorrhoids. Of total, 82% cases had complained of Bleeding, 56% cases had complained of Prolapse and 36% cases had complained of pain. After surgery, 3 cases had complained of bleeding, 2 cases had developed pain and one patient had complained of constipation. **Conclusion:** Transanal suture rectopexy, or CP, is a very promising treatment with a short learning curve for haemorrhoids. We conclude that the operation effectively controlled the bulk, prolapse, and recurrence of haemorrhoids based on our experience with 50 patients. Because it is affordable and has no postoperative consequences such as discomfort, incontinence, or urgency of faeces, the author suggests this specific surgery for grade III and grade IV haemorrhoids.

INTRODUCTION:

Haemorrhoids are a common medical condition that afflict 4 to 36% of people.¹ Despite being the gold standard procedure and initially described by Milligan and Morgan in 1937, haemorrhoidectomy remains a painful surgical procedure. The internal haemorrhoidal plexus's terminal branches of the superior rectal artery and middle hemorrhoidal artery provide the majority of the vascular contribution to haemorrhoids.² The anatomical anal canal's upper border and the dentate line define the submucosal location of the vascular plexus. Patients with symptomatic haemorrhoids had significantly larger blood vessels, more blood flowing through them, and quicker blood flow than healthy volunteers. There is a correlation between the haemorrhoid grades and the artery diameter and blood flow.^{3,4}

Long-term, recurrent defecation can cause downward straining that can break apart Treitz's muscle. Prolapse of the haemorrhoids can be brought on by excessive straining, constipation, or elevated intraabdominal pressure from firm faeces.⁵ It is commonly known that the lining of the anal canal slips. Grade II to IV haemorrhoids are a prime example of prolapsed haemorrhoids.^{6,7}

Numerous approaches to treating haemorrhoids have been reported, including changing one's diet and using laxatives; medication (including steroids, local anaesthetics, and dietary supplements); and medical operations (such as foam sclerotherapy, rubber band ligation, stapled hemorrhoidopexy, laser hemorrhoidopexy, and IRC).⁸ Even with the numerous research that have been carried out in the last few years, there is still no one "optimal" therapy approach. So, present study was conducted to assess the outcome of chivates transanal suture hemorrhoidopexy.

Aims & Objectives: To assess the outcome of chivates transanal suture hemorrhoidopexy.

Methodology: A cross-sectional study was conducted among 50 cases who undergoing chivates transanal suture hemorrhoidopexy at Department of General surgery, New

Civil hospital, Surat. Inclusion criteria was as follows: age group between 18-60 years, both sexes with grade III and grade IV haemorrhoids and mucosal prolapse. Exclusion criteria were patients with liver cirrhosis, abnormal PT-INR, anaesthesia contraindications and thrombosed pile mass.

The Institutional Ethical Permission was taken prior to the study. The written informed consent was taken from study participants. Detailed case history, clinical findings and related blood investigations details were noted.

Procedure of Suture hemorrhoidopexy:

After adequate anaesthesia, patient is put in lithotomy position. With the help of lignocaine jelly prolapsed piles reduced and chivates instrument (figure 1) with obturator and light fountain attached to it is introduced per anal. After removing obturator, dentate line is visualised and two circumferential suture lines are taken 2cm and 4cm proximal to dentate line respectively in double interlocking manner with the help of Vicryl 2-0 30mm, 90cm length round body suture (figure 2). Anal pack applied and sterile dressing kept.



Figure3: Pre operative and post operative images – Trans anal Suture hemorrhoidopexy



Data Collection & analysis:
Data were collected and entered in Microsoft excel sheet and analyzed using SPSS software. Qualitative data were described as frequency and percentages and quantitative data were described as Mean and SD.

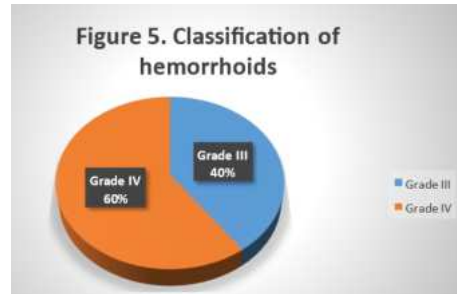
RESULTS:
Table 1 .Age group wise distribution

Age group (in years)	Frequency	Percentages
< 20	1	2
21-30	4	8
31-40	32	64
41-50	9	18
51-60	4	8

The mean age of study participants was 33.5 + 5.7 years. Total 32(64%) cases were belonged to 31-40 years of age group. Only one case was age less than 20 years. [Table 1]



Out of total, 38(76%) cases were males and 12(24%) cases were females. [Figure 4]



Among the study participants, 20(40%) cases had grade III and 30(60%) cases had grade IV hemorrhoids. [Figure 5]

Table 2. Clinical symptoms

Presence of Clinical symptoms	Frequency	Percentages
Bleeding	41	82
Prolapse	28	56
Anal itching	15	30
Discharge	7	14
Pain	18	36

Of total, 82% cases had complained of Bleeding, 56% cases had complained of Prolapse and 36% cases had complained of pain. [Table 2]

Table 3. Post operative Complications

Post operative Complications	Frequency	Percentages
Bleeding	3	6
Pain	2	4
Constipation	1	2
None	44	88

After surgery, 3 cases had complained of bleeding, 2 cases had developed pain and one patient had complained of constipation. [Table 3]

DISCUSSION:

Haemorrhoid excision and pedicle ligation were first performed by Milligan and Morgan in 1937. The procedure's disadvantages included pain and a longer hospital stay. Longo introduced stapled haemorrhoidopexy to reduce the

risk of prolapse by performing a stapled circular mucosectomy 4 cm above the dentate line. Doppler-guided HAL procedure has been shown to recur in 12% of patients with a duration of 1 year in cases of non-prolapsing hemorrhoids.⁹

In present study, the mean age of study participants was 33.5 + 5.7 years. Total 32(64%) cases were belonged to 31-40 years of age group. Singh SAM et al¹⁰ the mean age was 42.5 years.

In current research, out of total, 38(76%) cases were males and 12(24%) cases were females. Petito L et al¹¹-study found that males were more affected than females.

In this study, among the study participants, 20(40%) cases had grade III and 30(60%) cases had grade IV hemorrhoids. In research of Chivate SD et al¹² observed that all patients experienced frequent episodes of bleeding and hemorrhoidal prolapse. Pruritis ani was present in 792 grade II patients, 1254 grade III patients, and 693 grade IV patients. Mucoïd discharge and soiling of clothes were reported by 792 grade II patients, 1254 grade III patients, and 693 grade IV patients. Heaviness and pain were present in 1881 cases—353 in grade I patients, 660 in grade III patients, and 868 in grade IV patients.

In present study, of total, 82% cases had complained of Bleeding, 56% cases had complained of Prolapse and 36% cases had complained of pain. After surgery, 3 cases had complained of bleeding, 2 cases had developed pain and one patient had complained of constipation. A study done by et al¹³ found that postoperatively, a visual analog pain score of 2 to 3 was reported in 126 (2.2%) cases; in 5506 (97.7%) cases, minimal pain of visual analog pain score 1 to 2 was reported. Minor bleeding was noted during the first and second week in 108 (1.9%) cases and was treated conservatively.

CONCLUSION:

Transanal suture hemorrhoidopexy, or CP, is a very promising treatment with a short learning curve for haemorrhoids. We conclude that the operation effectively controlled the bulk, prolapse, and recurrence of haemorrhoids based on our experience with 50 patients. Because it is affordable and has no postoperative consequences such as discomfort, incontinence, or urgency of faeces, the author suggests this specific surgery for grade III and grade IV haemorrhoids.

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Ethical permission: Taken

REFERENCES:

1. Tewari M, Shukla HS. Sushrusha the father of Indian surgery. Indian J Surg. 2005;67:229-30.
2. Milligan ETC, Morgan CN, Officer R. Surgical anatomy of the anal canal, and the operative treatment of haemorrhoids. Lancet. 1937;230:1119-24.
3. Thomson WH. The nature of haemorrhoids. Br J Surg. 1975; 62:542-52. 6. Haas PA, Fox TA, Jr, Haas CP. The pathogenesis of hemorrhoids. Dis Colon Rectum. 1984;27:442-50.
4. Lohsiriwat V. Hemorrhoids: from basic pathophysiology to clinical management. World J Gastroenterol. 2012;18:2009-17.
5. Khubchandani IT. A randomized comparison of single and multiple rubber band ligations. Dis Colon Rectum. 1983;26:705-8.
6. Chivate SD, Ladukar L, Ayyar M, Mahajan V, Kavathe S. Transanal Suture Rectopexy for Haemorrhoids: Chivate's Painless Cure for Piles. Indian J Surg. 2012;74(5):412-7.
7. Sutherland LM, Burchard AK, Matsuda J, Sweeney L, El B, Childs PA, Roberts AK, Waxman BP, Maddern GJ. A systematic review of stapled hemorrhoidectomy. Arch Surg. 2002;137:1395-406
8. Loder PB, Kamm MA, Nicholls RJ, Phillips RK. Haemorrhoids: pathology, pathophysiology and aetiology. Br J Surg. 1994;81:946-54.
9. Sandler RS, Peery AF. Rethinking what we know about hemorrhoids. Clin Gastroenterol Hepatol. 2019; 17:8–15.
10. Singh SAM. Outcome of Chivates trans anal suture mucoanopexy procedure for haemorrhoids: primary findings in south Indian population. Int Surg J 2023;10:1507-
11. Petito L, Mattana C, Coco C, Manno A, Verbo A, Rizzo G, Seromoneta D. Stapled haemorrhoidopexy and Milligan Morgan haemorrhoidectomy in cure of fourth degree haemorrhoid: long term evaluation and clinical results. Dis Colon Rectum. 2007;50(11):1770–1775. doi:10.1007/s10350-007-0294-6.
12. Chivate SD, Killedar MM, Ladukar LD, Vardhani GS, Kavathe SK, Kanekar SR.

Transanal Suture Mucopexy for Hemorrhoids. Dis Colon Rectum. 2022 May 1;65(5):742-749. doi: 10.1097/DCR.0000000000002191. PMID: 34958048; PMCID:PMC8985695.

13. Simillis C, Thoukididou SN, Slessor AA, Rasheed S, Tan E, Tekkis PP. Systematic review and network meta-analysis comparing clinical outcomes and effectiveness of surgical treatments for haemorrhoids. Br J Surg. 2015; 102:1603-1618