WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 14, Issue 15, 922-931. Case Study ISSN 2277–7105

OVERVIEW OF CHIVTE'S PROCEDURE AKA TRANSANAL SUTURE RECTOPEXY FOR 4TH DEGREE HAEMORRHOIDS: A CASE STUDY

[1]*Dr. Vikas Udaybhan Gupta, [2]Dr. Aparna A. Raut and [3]Dr. Vishal V. Pagar

[1]Pg. Scholar Final Year, Dept. of Shalyatantra.

[2]HOD, Professor Dept. of Shalyatantra.

[3]BAMS, M.S., PG College, Shree Sapthshrungi Ayurved Mahavidyalaya & Hospital, Nashik, Nashik, Maharashtra.

Article Received on
13 June 2025,

Revised on 02 July 2025,
Accepted on 23 July 2025

DOI: 10.20959/wjpr202515-37696

***Corresponding Author**
Dr. Vikas Udaybhan Gupta
Pg. Scholar Final Year,
Dept. of Shalyatantra.

ABSTRACT

Fourth-degree haemorrhoids, characterized by permanent prolapse and non-reducibility, often require surgical intervention. While conventional options like haemorrhoidectomy or stapled haemorrhoidopexy are widely practiced, a newer minimally invasive approach—**Chivte's Procedure**, also known as **Transanal Suture Rectopexy (TSR)**—has emerged as a promising alternative. This paper presents an overview of the technique and a case study highlighting its clinical efficacy, safety, and functional outcomes Transanal suture rectopexy is a minimally invasive surgical procedure used to treat hemorrhoids and other disese like prolapse rectum. The principle is based on dearterialization, achieved by blocking the vessels at two sites, 2 cm and 4 cm proximal to the dentate line. This prevents the formation of collaterals and subsequent recurrence.[1] In this study, patient was suffering from 4TH degree heamorrhoid treated with Chivte's procedure without any excision of pile mass. In post – operative management care only sitz bath with medication given.

KEYWORDS: 4TH degree heamorrhoid, Chivte's procedure, minimally invasive proctology surgical procedure; double interlock Suture rectopexy, spinal anaesthesia, Short stay.

INTRODUCTION

- Three anal cushions present in respective to the superior rectal end arteries at 3, 7 and 11 o'clock. The main part of the cushion lies just above the dentate line and is covered by

sensitive mucosa. On cross section between the mucosal cushions and internal sphincter muscles is the submucosal layer, which consists of veins, arteries and muscular and connective fibre tissues.

- Haemorrhoidal disease is a common anorectal disorder, and its severity is graded from I to IV based on the degree of prolapse. Fourth-degree haemorrhoids are the most severe form and typically do not respond to conservative management. Conventional treatments like the Milligan-Morgan or Ferguson haemorrhoidectomy carry risks of postoperative pain, bleeding, and incontinence.
- Hemorrhoids (piles) result from increased pressure in the rectal venous plexus, often due to straining, prolonged sitting, heavy lifting, obesity, or coughing. This pressure leads to engorgement of the valveless veins, which become trapped within the rectal wall during defecation. Continued arterial blood flow further exacerbates the engorgement, forming hemorrhoids. Bright red rectal bleeding is the primary symptom. The hemorrhoidal plexus's similarity to the corpus cavernosum suggests direct arteriovenous connections, explaining the arterial nature of the blood. Weakening of supporting connective tissue (Parks ligament/ treitz ligament) due to age, genetics, or repeated straining allows the engorged veins to prolapse with cushion, making the fragile mucosa prone to bleeding. Thus, hemorrhoids are primarily a vascular issue worsened by weakened structural support.
- **Chivte's Procedure**, first described by Dr. V. P. Chivte, offers a transanal, minimally invasive approach to restore anorectal anatomy through mucosal plication and rectal wall fixation without tissue excision. It targets the underlying rectal mucosal prolapse contributing to haemorrhoidal disease and aims to minimize complications while preserving continence.
- The fixation of these loose prolapsing piles cushions has been understood to be the main principle of newer modalities of treatment of haemorrhoids by Chivte's procedure.

AIM

To evaluate Chivate's procedure of transanal suture rectopexy for 4th degree prolapsed haemorrhoids.

CASE REPORT

A 58 years old male patient having with complaint of 4th degree prolapsed heamorrhoid came in SSAM &H for management.

CHIEF COMPLAINTS

- Painful defecation and Bleeding since 2 months
- Itching at Anal region since 3months
- Feeling of Protruding Mass per rectally.
- Intermittent Constipation since 4-5 months

HISTORY OF PRESENT ILLNESS

A 58 year old patient having H/O intermittent constipation since 4-5months as he has continuous sitting history for more than 11 hours daily for his work i.e. non mobile, non physical activity with non vegetarians diet i.e. non fibrous diet. Further he develops straining defecation habit. than after 2 months he present with painful defecation with bleeding and feeling of protruding mass per rectal; defecation time was almost more than half hour regularly . Patient came with above chief complaint to OPD.

Past History

He has no any surgical history or any major illness.

Family History

No any family History.

Personal History

Name –XYZ Age-58 year/male

Marital status- Married

Occupation- IT COMPUTER ENGINEER

Addiction – TOBACOO

Bowel –Irregular; intermittent constiaption

Appetite –low appetite

General Examination

Blood pressure-130/90 mm hg.

Pulse- 88/min.

Peripheral oxygen saturation (SpO2)- 96% on room atmosphere.

Respiratory rate – 22/min.

Temp.-98.2°F

Pallor/icterus-No

Weight -78kg

Height -5.6ft.

Systemic Examination

Respiratory system- Air entry bilateral equal (AEBE)

Cardiovascular system – S1 S2 normal, No murmur

Central nervous system – Patient is conscious and well oriented to time, place and person

Abdominal examination- Soft and non- tender.

Per rectal Examination

Inspection: Circumferential prolapse of haemorrhoidal masses seen externally, non-reducible, with signs of congestion and mucosal soiling. No ulceration or thrombosis visible.

Digital Rectal Examination

- **Sphincter Tone**: spasm of sphincter tone with adequate voluntary contraction.
- **Mucosa**: Redundant mucosa felt circumferentially, consistent with mucosal prolapse. Associated with fissure in ano at 6'o clock position.
- **Masses**: Bulky, soft, prolapsed haemorrhoidal cushions palpable at classical positions (3, 7, and 11 o'clock).
- P/R examination was painful.
- **No evidence of**
  - Rectal growth or stricture
  - Deep tenderness
  - Rectocele
  - polyp

Routine lab Investigation

- Hb-10.2gm%
- WBC-6800/mm^3
- Platelet count –2.15lacs/mm^3
- BSL Fasting -86mg/dl
- Post prandial-121mg/dl
- Serum creatinine-1.1mg/dl
- Bleeding time-1min15sec
- Clostting time-4min45sec

- HIV (1AND 2)-non reactive
- HBsAg -non reactive

The case was plan for Chivate's procedure of transanal suture rectopexy under spinal anaesthesia.

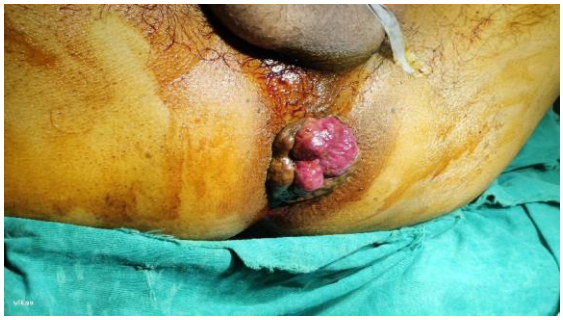
PRE- OPERATIVE

- The whole procedure explain to the patient and relatives and written consent was taken from patient. Patient was NBM for 6hr. The bowel preparation was done by giving oral liquids 30 ml of lactihep.
- Preparation of part was done on day before operation. Inj. Tetanus toxoid 0.5cc IM stat was given as prophylactic measures and sensitivity test was done with Inj. Xylocaine 2 % on same day of operation.

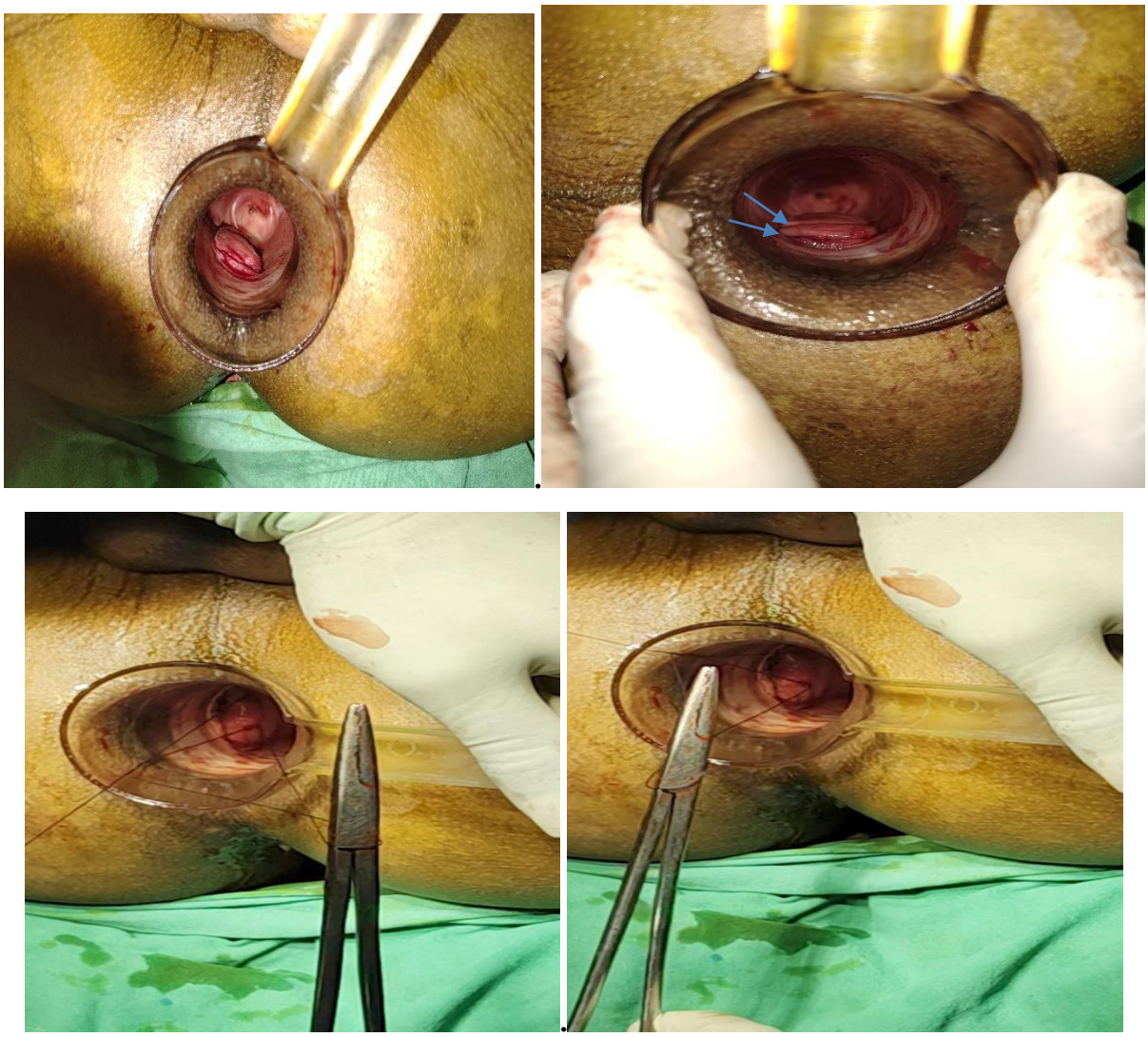
OPERATIVE PROCEDURE

- Under the spinal anaesthesia with 2ml Inj bupivacain 0.5% heavy, patient was positioned in lithotomy with head low position, painting and drapping done.
- initial assessment with gauze and a half-cut proctoscope done, followed by insertion of a Chivate's proctoscope for visualization of the mucosa and dentate line.
- 1st suturing started at the 6 o'clock position,4cm proximal to dentate line and another 2nd suture at 9 o'clock position, 2cm proximal to dentate line by Double interlocking method (avoiding purse string effect) and passed through mucosa, submucosa, internal sphincter fiber circumferentially by using 30mm round body ½ circle 90 cm vicryl 2-0 (polyglactin).
- The suturing was continued all along the complete circumference of the rectum at the same level.
- blood loss was minimal and Haemostasis achieved. Zonac suppository placed, anal Packing done. Patient shifted to the ward with stable vitals.

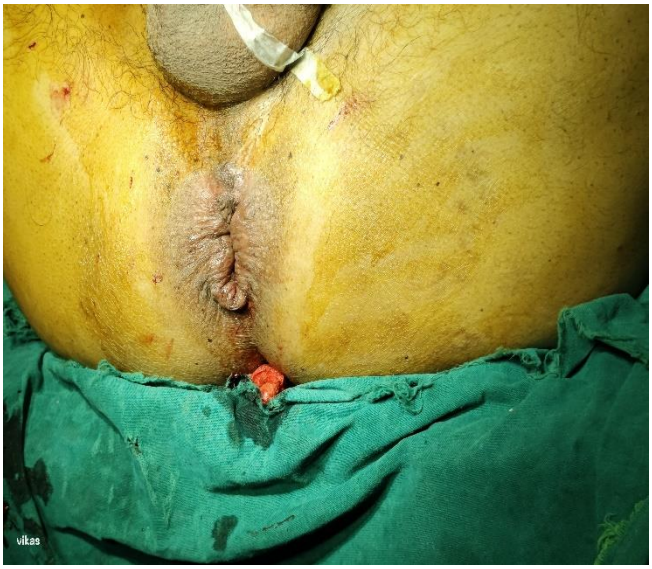
Pre Operative



OPERATIVE



Post operative



POST- OPERATIVE

- NBM for 6hr.

POD -0

Inj. Monocef iv bd,

inj metro100ml iv tds

inj dynapar aq 75mg iv bd

inj. Pan 40mg iv bd,

inj Emset 4mg iv bd

Liquid cremaffine 15ml hs 3days,

local application of anometrogyl gel.

IVF DNS 500ML

RL 500ML

Diet -liquid on POD 1ST ->semisolid for next 3days > normal diet rich in fiber

Removal of anal pack after 6hr on POD-0

Patient discharge on POD -1

Early Postoperative Phase (Day 1–5)=On discharge treatment

Tb cefuroxime 500mg bd

Tb metro ER 600mg od

Cap pan d od

Tb limcee 500mg od

Anometrogyl ointment for local application

SITZ BATH BD

LAXATIVE -Liquid cremaffin 15ml hs

Nutritional support: high-protein diet with adequate hydration to promote wound healing.

Strictly avoid prolonged sitting or pressure on the operated area For 5days.

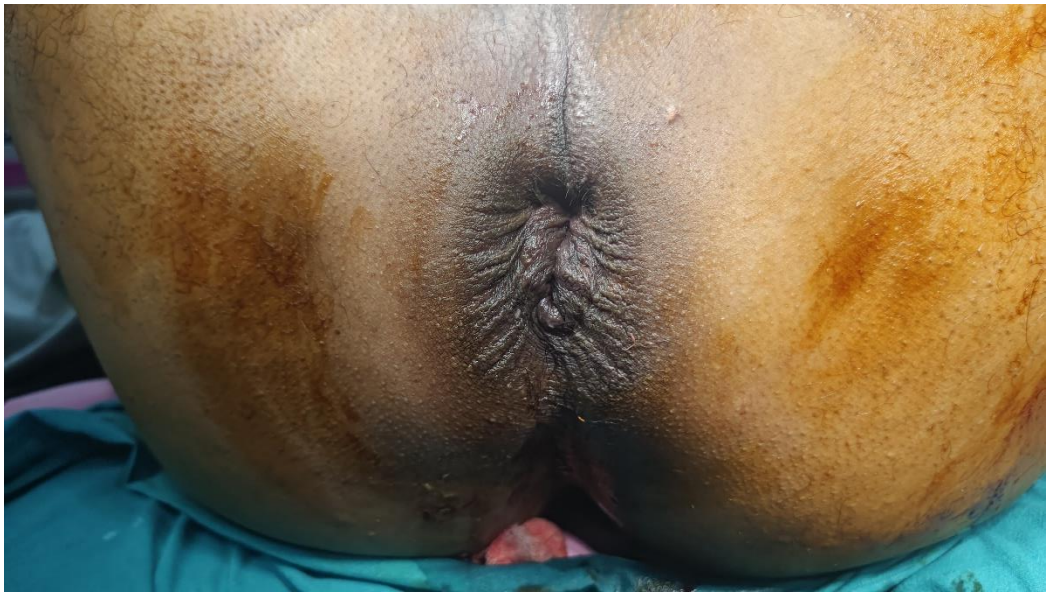
Monitor for complications

- **Bleeding per rectal**
- pus discharge

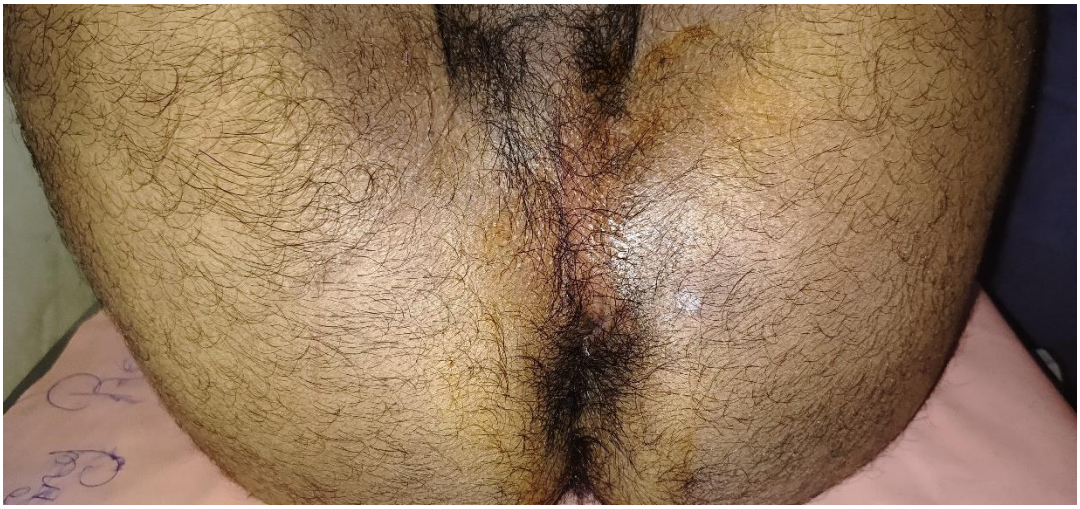
Followup -Late Postoperative Phase

- Followup on 6th day for per rectal examination -no pus discharge, no bleeding, defecation urgency for 2-3 days.

- Next followup on 15th day -no any fresh complaints, per rectal examination was painless with adequate anal sphincter tone, no any pile mass prolapsed seen.
- FINAL followup on 30th day- per rectal examination -sphincter tone normal admit 2finger adequately without pain, reduced pile mass completely, no bleeding on finger gloves.



POD 6



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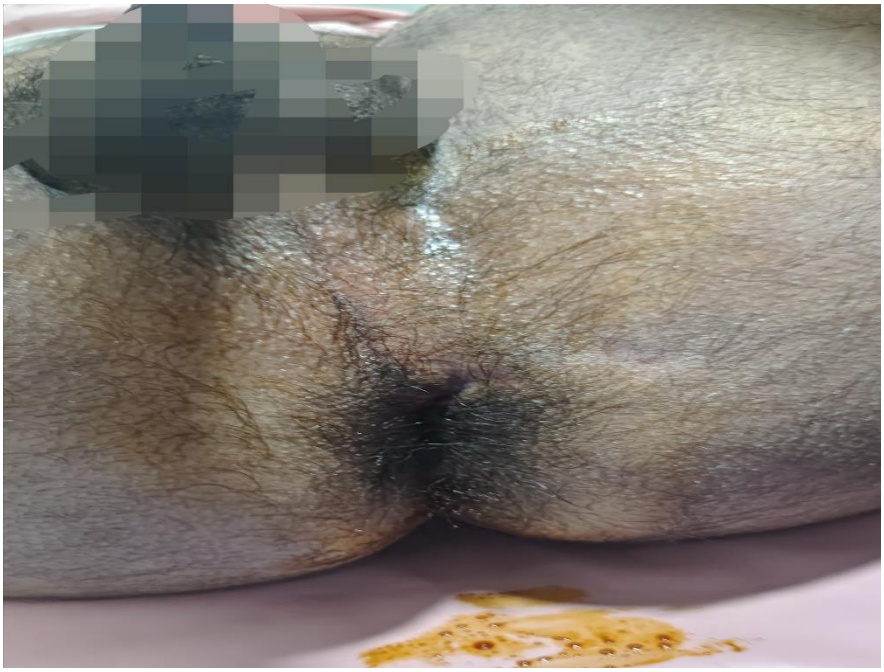

POD 30

RESULTS

- Bledding as few dropswise intermittently noted which stopped after around 2 days.
- Muscosal Prolapse was Vanished, Mucosa was fixed at its original position.
- Pile mass size was reduced about after 15days completely.
- Itching was reduced significantly.
- No ischaemia or stenosis was observed in the 2-cm area between the two circumferential suturing lines on per rectal and proctoscopy examination.
- No recurrence of haemorrhoids or no incidence of impairment of continence was noted. Postoperative minimum pain was present for 2-3 days.
- No complication of soiling and leakage were noted.

DISCUSSION

- Chivte's TSAR represents a significant advancement in the management of advanced haemorrhoidal disease. Unlike traditional haemorrhoidectomy, it addresses the root cause—mucosal descent and rectal wall laxity—without resecting tissue. The absence of an external wound reduces postoperative morbidity and enhances patient compliance. Importantly, the procedure avoids the complications associated with stapled haemorrhoidopexy, such as staple line strictures and rectal perforation.

- This case demonstrates the efficacy of the procedure in a patient with severe fourth-degree haemorrhoids, highlighting excellent functional and cosmetic outcomes with minimal postoperative discomfort.
- In Chivate's procedure, the vessels are blocked at two sites at the distance of 2 cm, which reduces the chances of development of the collaterals and hence recurrences.
- The blood supply from seromuscular layer is persistent, which avoids the necrosis of the area of the less vessel area and area between suture.

CONCLUSION

- Chivte's Transanal Suture Rectopexy is a safe, effective, and minimally invasive alternative for the management of 4th-degree haemorrhoids. The procedure is anatomically sound, function-preserving, and well-tolerated, particularly suitable for patients seeking a faster recovery with minimal complications. More multicentric studies with long-term follow-up are warranted to establish its role in routine proctologic surgery**.**
- Chivate's transanal suture rectopexy for haemorrhoid is a very simple stitching procedure, and the learning curve is minimal. It has equal successful outcome in all grades of haemorrhoids
- This procedure have shown promising results. and associated with minimal pain and fewer complications compared to other hemorrhoid treatments and could be performed safely by surgeons with minimal experience.

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