

Integrating Traditional Ayurvedic Approaches: A Case Study on the Efficacy of Ksharasutra Ligation for Fourth-Degree Hemorrhoids

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ABSTRACT

Introduction: The Sushruta Samhita, a seminal Ayurvedic text, emphasizes the surgical management of conditions like Arsha (hemorrhoids), which are increasingly prevalent with age. While modern treatments such as rubber band ligation and haemorrhoidectomy exist, they often present complications. Sushruta's methods include Ksharasutra, a caustic treatment for hemorrhoids. **Case History:** A 51-year-old female presented with a non-reducible anal mass and intermittent bleeding for 1.5 years. Examination revealed fourth-degree inter-external hemorrhoids. Laboratory tests were normal, and the patient was deemed fit for Ksharasutra ligation under local anesthesia. **Pre-operative Preparation:** Informed consent was obtained. Pre-operative protocols included administration of Swadishta Virechana Churna, fasting instructions, and enema. **Operative Procedure:** Under aseptic conditions, local anesthesia was administered, and hemorrhoids were surgically managed using Ksharasutra ligation at multiple clock positions. Proper hemostasis was ensured before postoperative care began. **Post-operative Care:** Hydration was maintained with IV fluids, and antibiotics were provided. Sitz baths and Ayurved medications were prescribed. The patient followed a specific diet and was

monitored for complications. By the fifth post-operative day, necrosed hemorrhoids sloughed off, and the wound healed by the 15th day, with no complications noted by the 21st day. **Conclusion:** Ksharasutra ligation proved effective and safe for treating fourth-degree hemorrhoids, with no significant complications. The combination of traditional Ayurvedic treatments facilitated the patient's recovery and highlights the potential of integrating Ayurvedic practices into modern surgical protocols.

Keywords:

Hemorrhoids, Ksharasutra, Triphala, Arshonil.

INTRODUCTION

The **Sushruta Samhita** is a foundational text in Ayurveda focused on surgical practices, noting that some conditions, like Arsha (hemorrhoids), require more than just conservative treatment. Sushruta categorized Arsha as one of the **Ashtamahagada**, emphasizing its serious nature. Hemorrhoids are prevalent and can affect anyone, with the likelihood increasing with age; about 50% of individuals over fifty experience symptoms related to this condition.

Modern surgical treatments for hemorrhoids include methods such as “rubber band ligation, cryotherapy, infrared coagulation, hemorrhoidectomy, Doppler-guided hemorrhoidal artery ligation, and stapled hemorrhoidectomy”. However, these options come with limitations, including concerns about efficacy and potential complications such as anal stricture, incontinence, and bleeding.

Sushruta identified four treatment categories: **Bheshaja Chikitsa** (symptom management), **Kshara Karma** (cauterization therapy), **Agnikarma** (direct cauterization), and **Shastra Karma** (surgical intervention). One notable technique from this period is the **Ksharasutra**, described by Charakpani in the **Chakradatta** for treating Arsha. The preparation of Ksharasutra involves materials like the latex of **Euphorbia nerifolia**, ash of **Achyranthus aspera**, **Curcuma longa**, and a specific size of surgical linen thread.

Hemorrhoids can be classified as either internal or external, with internal hemorrhoids further categorized into four degrees: first-degree (bleeds but does not prolapse), second-degree (prolapses during straining but returns spontaneously), third-degree (prolapsed but can be manually replaced), and fourth-degree (permanent prolapse). The external type is located near the dentate line, while both internal and external types are referred to as intero-external hemorrhoids.

CASE HISTORY

A 51-year-old female patient presented to Brahm Ayurved Chikitsalay in Vesma, Navsari, with significant complaints regarding her anal health. She reported a protruding mass in the anal region that has been non-reducible for the past six months. Additionally, she has experienced intermittent bleeding from the anus, occurring before and after defecation for the last 1.5 years. The patient described discomfort and mild pain in the anal area, particularly exacerbated during walking and sitting. Upon conducting a per-anal examination, large, swollen, and strangulated internal-external hemorrhoids were observed at the positions of one, three, five, seven, and eleven o'clock. Seen in Figure no. 01



Figure No 1

The patient underwent a proctoscopic examination following blood tests for HIV, VDRL, and HBsAg, confirming a diagnosis of fourth-degree inter-external hemorrhoids at the one, three, five, seven, and eleven o'clock positions. She has no history of hypertension, diabetes, or cardiovascular disorders. Routine laboratory tests, including blood, urine, stool analyses, chest X-ray, and abdominal ultrasound, were performed, all of which returned normal results. Systemic examinations indicated that the patient was physically and mentally fit for surgery under spinal anesthesia. Consequently, she was scheduled for Ksharasutra ligation under local anesthesia.

Pre-operative Preparation: The patient's written informed consent was secured prior to the procedure. The local area was prepared the day before the surgery. The patient was administered 5 grams of Swadishta Virechana Churna at bedtime and instructed to refrain from eating or drinking after midnight. On the morning of the surgery, a 1-liter ushnodaka enema was given, and vital signs were monitored. Additionally, an intramuscular injection of 0.5 ml Tetanus Toxoid was administered, and a sensitivity test for Xylocaine was conducted the day prior to the operation.

Operative Procedure: Under strict aseptic conditions, the patient was brought into the operating room, where local anesthesia was administered. The perineal area was then painted and draped. A four-finger anal dilatation was performed using Lord's technique. The inter-external hemorrhoid at the one o'clock position (left anterior) was grasped with pile-holding Babcock forceps, and the skin of the external hemorrhoid was incised with scissors up to the mucocutaneous junction, taking care not to injure the mucosa. Next, fixation and ligation using Ksharasutra were performed at the base of the hemorrhoid, with the thread applied in four directions to the incised portion of the external hemorrhoid mass. This procedure was then repeated for the hemorrhoids located at the three, five, seven, and eleven o'clock positions. After ensuring proper hemostasis, the surgical area was cleaned with Betadine and hydrogen

peroxide. Diclofenac suppositories were then inserted into the anal canal, and a T-bandage was applied. The patient was subsequently transferred to the recovery room with stable vital signs.

Post-operative Care: The patient was initially allowed only small sips of water and hydration was maintained through intravenous fluids, including Ringer's Lactate, Dextrose, and Normal Saline. Appropriate antibiotics and analgesics were administered via injection for the first two days, followed by oral medication for an additional five days. From the next day, the patient was advised to take sitz baths twice daily using diluted Panchavalkala decoction. She was also prescribed 5 grams of Swadista Virechan Churna at bedtime, along with 500 mg of Triphala Guggulu and Arshonil Vati three times a day. Regular antiseptic dressings were performed. The patient was instructed to begin a diet rich in green vegetables, milk, fruits, rice, and roti, while ensuring adequate hydration. She was advised to avoid non-vegetarian, spicy, oily foods, junk food, tobacco, and alcohol, and to limit long periods of sitting, traveling, and riding on two-wheelers. On the fifth post-operative day, the Ksharasutra was twisted, leading to the sloughing of necrosed hemorrhoids and the formation of a fresh wound. Dressing and Matra Basti with Jatyadi Taila were continued for another ten days. The wound was fully healed by the 15th day. Subsequently, anal dilatation was initiated using a medium-sized plastic anal dilator, and by the 21st post-operative day, the wound had healed completely without any stricture or complications.

RESULTS AND DISCUSSION

Acharya Sushruta outlined four therapeutic approaches for treating Arsha (hemorrhoids): **Ausadhi** (medications), **Kshara** (external caustic applications), **Agni** (medical cauterization), and **Shastra** (surgical procedures). In modern medicine, several treatment options exist for hemorrhoids, including sclerosant injection therapy, rubber band ligation, cryosurgery, infrared therapy, and hemorrhoidectomy. However, these methods tend to have higher recurrence rates and post-operative complications, such as hemorrhage, pain, delayed healing, and stricture. In contrast, Ksharasutra ligation therapy is considered superior to hemorrhoidectomy due to its lower complication rates. In this case, there were no instances of post-operative hemorrhage, urinary retention, or pain, and delayed complications like anal stricture and fecal incontinence were not observed.

Ksharasutra was applied under local anesthesia, dislodging spontaneously after five days. The Kshara on the thread possesses anti-inflammatory and antimicrobial properties, while its alkaline composition provides chemical cauterization, promoting tissue cutting and healing. With a pH of 10.3, Ksharasutra inhibits bacterial growth at the ligation site. The cutting action occurs through the local effects of Kshara and Snuhi, along with the mechanical pressure of the tightly knotted Ksharasutra during the first one to two days, followed by healing over the next five to six days. Turmeric powder (*Curcuma longa*) helps mitigate caustic reactions and aids in the healing process. Ksharasutra combines the effects of Apamarga Kshara, Snuhi, ksheer, and turmeric, making it a unique formulation for cutting hemorrhoidal pedicles and facilitating tissue repair.

Adjuvant treatments like Panchavalkal Kwath play a significant role in maintaining local hygiene and promoting the cleaning (Shodhan) and healing (Ropan) of post-operative wounds (Figure no 2). The Swadista Virechana Churna, prescribed for its purgative effects, alleviated the patient's history of constipation. Triphala Guggulu's anti-inflammatory properties helped reduce post-operative swelling, while Arshonil Vati contributed to enhance healing. Jatyadi Taila, with its ingredients such as Neem (*Azadirachta indica*) and Daruharidra (*Berberis*

aristata), possesses anti-inflammatory, analgesic, and healing properties, further supporting wound recovery. After the hemorrhoids sloughed off, anal dilatation was advised to prevent stricture formation. Thus, alongside Ksharasutra ligation, these complementary medications facilitated the patient's early recovery. The patient was monitored every other day, and by the 20th day (Figure no 3), she was free from all hemorrhoidal symptoms, with a normal wound scar and no complications.

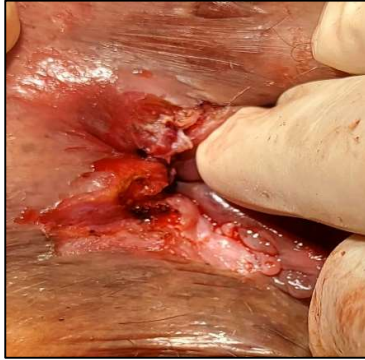


Figure No 2



Figure No 3

CONCLUSION

This case highlights the effective application of Ksharasutra ligation in the management of fourth-degree inter-external hemorrhoids, as outlined by Acharya Sushruta. The integration of traditional Ayurvedic therapies with modern surgical practices demonstrated a significant reduction in complications and a favorable recovery trajectory for the patient. The use of Ksharasutra not only facilitated effective tissue cutting and healing through its unique properties but also ensured minimal post-operative issues, such as hemorrhage, pain, or stricture. Complementary treatments, including dietary modifications and herbal formulations, further enhanced recovery and supported wound healing. Overall, this approach underscores the potential of Ayurvedic methods in contemporary medical practice, offering a viable alternative for patients with hemorrhoidal conditions while promoting holistic healing. The patient achieved complete symptom resolution and satisfactory wound healing, reaffirming the efficacy of the Ksharasutra technique in managing hemorrhoids.

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