



International Journal of Herbal Medicine

Available online at www.florajournal.com



E-ISSN: 2321-2187
P-ISSN: 2394-0514
IJHM 2015; 3(5): 52-55
Received: 16-10-2015
Accepted: 20-11-2015

Manoj Bhadja
M.S. (Scholar), Department of Shalya tantra, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, Gujarat. Pin -361008, India.

Tukaram Dudhamal
Assistant Professor, Department of Shalya tantra, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, Gujarat. Pin-361008, India.

Sanjay Kumar Gupta
Professor and Head Department of Shalya tantra, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, Gujarat. Pin -361008, India.

Correspondence
Tukaram Dudhamal
Assistant Professor, Department of Shalya tantra, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, Gujarat. Pin-361008, India.

Ksharasootra ligation in complicated case of fourth grade interno-external piles: A case report

Manoj Bhadja, Tukaram Dudhamal, Sanjay Kumar Gupta

Abstract

In Ayurveda practice *Ksharasootra* (a para-surgical procedure) is widely popular in the management of anorectal disorders specifically in fistula-in-ano. It is also tried in the simple cases of piles and found effective. In this case report a 45 years old male patient visited to outpatient department of Ayurved research hospital with complaints of severe pain, bleeding and prolapsed something at anal region. After local examination the case was diagnosed as forth grade inflamed interno-external hemorrhoids at 3, 7 and 11 O'clock position. The case was admitted in the hospital and *Ksharasootra* transfixion and ligation was done under spinal anesthesia. The ligated pile masses were sloughed out on sixth postoperative day and the patient was relieved from all symptoms within 15 days. No complications were reported after the procedure. The patient was followed up regularly from April 2015 onward till date and did not reveal any postoperative complication and evidence of recurrence of piles. Hence this case highlighted that complicated fourth grade piles can be managed with ligation of *Ksharasootra*.

Keywords: *Arsha*, interno-external piles, *Ksharasootra*.

Introduction

In Ayurved *Arsha* (Piles/hemorrhoids) is included among eight grave diseases (*Ashtomahagada*) due to its recurrence nature. Sushruta described fourfold modality in the management of *Arsha* (Piles) that is use of *Ausadhi* (Medicines), *Kshara* (external use of Caustic), *Agni* (therapeutic cauterization) and *Shashtra* (Surgical procedure) [1]. Today in surgical practice there are many treatment modalities are available for the management of hemorrhoids according to gradation of piles. Sushruta mentioned *Ksharakarma* (local application of *Teekshna Kshara*) one of the modality in second grade piles. In reference to treatment of *Nadivrana*, Sushruta further quoted that pedunculated mass (*Arbudadi*) in the body can be transfixed with the *Ksharasootra*. So this reference can be taken as fourth grade piles may be treated with the transfixation by *Ksharasootra*. *Chakradatta* mentioned directly application of *Ksharasootra* in the treatment of *Bhagandara* (fistula-in -ano) and *Arsha* (hemorrhoids/piles) [2].

Ksharasootra ligation in *Arsha* is mentioned in *Bhavprakash* and *Rasakamadhenu* (classical Ayurvedic texts) but it is not widely practiced in all over India [3, 4]. The ingredients used for preparation of *Ksharasootra* are *Snuhi* (Latex of *Euphorbia nerifolia* Linn.), *Apamarga Kshara* (Ash of *Achyranthus aspera* Linn.), turmeric powder (*Curcuma longa* Linn.) and surgical Barbour's linen thread size 20. The *Ksharasootra* used in this case was prepared as per Ayurved Pharmacopeia of India (API) [5].

Hemorrhoids can occur in everyone which gradually became large and cause problems in only 4% of the general population and their prevalence peaks in people over 50 years of age. Hemorrhoids that cause problems are found in 2:1 ratio of men and women. Different treatment modalities are available like conservative medicine, injection therapy, rubber band ligation, cryosurgery, infrared coagulation, and operative treatment like normal hemorrhoidectomy, staple hemorrhoidectomy [6]. However, the chances of recurrence and post-operative wound infections are common hurdles in the piles surgery. Risk or complications of hemorrhoidectomy are mild to severe pain, retention of urine (7%), required catheterization, secondary hemorrhage (1.2%) and development of abscess or fistula [7].

Medical research databases like PubMed search reveals very few research papers dealing with clinical trials or case studies by *Ksharasootra* ligation in piles [8]. Therefore, this case study is being written to document a typical complicated case of interno-external fourth grade piles treated with *Ksharasootra* transfixation and ligation.

Case Report

A 45 years old male patient visited to outpatient department of Ayurveda research hospital on 12th March 2015 with complaints of prolapsed pile mass during defecation but those pile mass does not reduce manually, severe pain and bleeding during defecation. On per anal examination 3, 7 and 11 O'clock big inflamed interno-external piles were seen. [Fig-1] Proctoscopic examination after blood investigations for HIV, VDRL, HbsAg confirmed the diagnosis as a case of fourth grade interno-external hemorrhoids at 3, 7, & 11 'o' clock position. After careful interrogation with patient, following causative factors were identified like daily two wheeler riding, intake of excess spicy food, irregular food habits and straining to pass stool habitually.

Routine laboratory investigations for blood, urine, stool, chest X-ray and USG of whole abdomen were done and all reports were found within normal limit. Therefore patient was admitted in shalya male ward and appropriate antibiotics and analgesic were prescribed for initial three days to minimize infection and inflammation. After five days inflammation was resolved and the size of piles was remarkably reduced. [Fig-2] Systemic examinations reveal that patient was physically and mentally fit for surgery under spinal anesthesia. So this case was planned for *Ksharsootratra* transfixation and ligation interno external hemorrhoids under spinal anesthesia.



Fig-1: Interno-external piles first consultation



Fig-2: After reduced inflammation

Pre-operative: The written informed consent was taken from patient. Local part was prepared on previous day of operation. The patient was kept nil orally from midnight. Soap water enema at night and proctoclysis enema in morning on the day of operation was given. Inj. Tetanus Toxoid 0.5ml IM and inj. Xylocaine sensitivity test was done on previous day of operation.

Operative procedure: Under aseptic condition patient was given spinal anesthesia. In lithotomy position after painting

and draping of perineal area four fingers anal dilatation was done by Lord's procedure. First of all interno-external pile mass at 11 O'clock (Right anterior) was hold by piles holding forceps and skin of external piles was incised by scissors up to mucocutaneous junction without injury to mucosa. Then transfixation and ligation by *Ksharashootra* was done at the base of pile. The thread then placed along the incised part of external piles mass and riff knot was applied at four directions. Same procedure was adopted for transfixation and ligation of piles situated at 7 O'clock (Right posterior) and 3 O'clock (Left lateral) position. [Fig-3] After proper haemostatic achieved, part was cleaned by betadine then diclofenac suppositories inserted inside anal canal. T-bandage was applied and patient shift in the ward.

Post-operative: Patient was kept in head low position and nil orally for six hours then allowed liquids only. Maintain hydration with intravenous fluid of Ringer Lactate, Dextrose, and Normal saline. Appropriate antibiotics and analgesic were given as injectable for initial two days and then orally for further five days.

Following Ayurved medicines were prescribed from next morning for 15 days,

- Sitz bath with warm water and *Panchavalkala* (combination of five herbal plants) decoction for two times a day.
- Haritaki Powder (*Terminalia Chebula* Linn) 5 gm at bed time
- Tab. *Triphala Guggulu* 500mg thrice in a day.
- Per rectal instillation of *Jatyadi oil* (medicated oil) 10 ml daily

From next day evening patient advised to take diets like green vegetables, milk, fruits, rice, roti and plenty of water. Patient was advised not to consume non-vegetarian, spicy and oily foods, Junk foods, and alcohol. He also advised to avoid long sitting and riding/travelling.

On third post-operative day ligated piles masses became blackish and necrosed due to *Ksharashootra* ligation. [Fig-4] On sixth post-operative day the *Ksharashootra* was twisted so necrosed piles masses sloughed out and fresh wound was observed. Sitz bath, dressing and *Matra Basti* with *Jatyadi* oils was continued for further 10 days. On post-operative 11th day anal dilatation was started with anal dilator no. 6 lubricating with *Jatyadi Ghrita* (medicated clarified butter). On the 15th post operative day wound was observed in healing stage and there was no sphincter spasm. [Fig-5] On post-operative 30th day wound was completely healed without stricture or any complication. The post *Ksharashootra* wound was healed and looking normal anus without any scar. [Fig-6] The patient was followed up after 15 days and there was no any pain, inflammation and abnormality.



Fig-3: Ksharashootra ligation in piles



Fig 4: Status on third post-operative day



Fig 5: Status on 15th post operative day



Fig 6: Status on follow up after 30 days

Discussion

In this study, *Ksharasootra* was applied first time under spinal anesthesia and it was dislodged spontaneously after six days. The applied *Kshara* act as *Chhedya* (excision), *Bhedya* (incision), *Lekhya* (scraping) and it renders chemical cauterization of tissue by virtue of its alkaline nature which facilitates cutting of tissue.^[9] The pH of *Ksharasootra* is alkaline (pH-10.3) hence it does not allow growth of bacteria at site of ligation. This cutting is presumed by local action of *Kshara*, *Snuhi* and mechanical pressure of tight *Ksharashootra* knot during initial 1-2 days. Turmeric powder (*Curcuma longa*) minimizes reaction of caustics and helped for healing of wound.^[10] *Ksharasootra* has combined effect of these three herbal drugs (*Apamarga Kshara*, *Snuhi ksheer* and turmeric) and said to be unique drug formulation for cutting of piles pedicle as well as making wound clean.

The adjuvant drugs like *Panchavalkal Kwatha* (decoction of five herbs) sitz bath play important role in local hygiene, *Shodhana* (cleaning) and *Ropana* (healing) of the post-operative wound.^[11] Haritaki has laxative action and helped

for normal bowel as patient had history of constipation. *Triphala Guggulu* has anti-inflammatory action so in this case post-operative swelling gets relieved^[12]. Most of the ingredients used in *Jatyadi* oil are anti-inflammatory, analgesic and healing properties which helped in wound healing. The ingredients of *Jatyadi* oil like *Neem* (*Azadirachta indica*) and *Daruharidra* (*Berberis aristata* DC) also promote wound healing^[13]. *Manjishtha* (*Rubia cordifolia*), *Sariva* (*Hemidesmus indicus*) and *Karanja* (*Pongamia pinnata*) are having wound cleaning properties^[14]. After cut through of piles, anal dilatation was advised on 15th day onward to avoid post-operative anal stricture. Hence along with *Ksharasootra* ligation in piles these adjuvant drugs also play vital role in early healing of post-operative wound. Patient followed up regularly on every week and after 15 days patient was free from all symptoms of piles without scar of wound within 30 days.

In comparison with haemorrhoidectomy *Ksharasootra* ligation is said to be better as it has minimum complications and no recurrences. In this case there was no post-operative hemorrhage and retention of urine after *Ksharasootra* ligation. The delayed complications like anal stricture and fecal incontinence are not observed in this case up to August 2015.

Conclusion

This single case demonstrated that fourth grade complicated interno-external piles can be treated with *Ksharasootra* ligation without post-operative complication and need more samples study for concrete conclusion.

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