A SINGLE CASE STUDY OF 21 COATED APAMARGA KSHARASUTRA IN THE MANAGEMENT OF BHAGANDARA (FISTULA IN ANO)

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ABSTRACT

Background: Most commonly practiced surgical “lay open” technique to treat fistula-in-ano (a common anorectal pathology) has high rate of recurrence and anal incontinence. Alternatively, a nonsurgical cost efficient treatment with Ksharasutra (cotton Seton coated with Ayurvedic medicines) has minimal complications. In this study, we have tried to elicit the effect of 21 coated Apamarga Ksharasutra in Bhagandhara. Materials and Methods: A prospective single case clinical study was designed involving patient from the Department of Shalya Tantra in Sri Dharmasthala Manjunatheshwara Ayurveda Hospital Kuthpady Udupi, in the year of 2018-19. Result: Treatment was cost effective, complete healing of tract, less painful, with no recurrence, no much period of hospitalization. Conclusion: The 21 coated Ksharasutra is simple and more effective treatment for complete cure of the tract in Bhagandhara (Fistula-in-ano).

KEYWORDS: Bhagandhara, Fistula-in-ano, Ksharasutra.

INTRODUCTION

Bhagandara (Fistula in Ano) at modern parlance is a common anorectal condition prevalent in the populations worldwide and its prevalence is second highest after Arsha (hemorrhoids).
Even though the use of Ksharasutra as such is not specified in the chapter of Bhagandhara by Acharya Sushruta, he gives the idea of use of sutra in case of Bhagandhara. Further in Nadivrana chikitsa chapter Acharya Sushruta have mentioned the use of thread coated with kshara[1]. Further Chakradatta has referred to a medicated thread coated with Snuhi and Haridra powder in treatment of Arsha and Bhagandar.[2][3] These are the supportive reference for the use of thread coated with kshara in treating the diseases like Nadivrana, Bhagandhara etc. Sushruta has discussed in the detail about various Shastra karma along with Anushastra karma which includes Agnikarma, Jalaukavcharana and Ksharakarma. Kshara is considered as one of the most important parasurgical procedure as it can produce excision, incision, scrapping and can pacify all three Doshas.[4]

Present days Kshara Sutra is one of the chief modality in the treatment of Bhagandara in Ayurvedic science. Various measures have been taken by different scholars in order to standardize both Kshara as well and thread in the preparation of Ksharasutra. One such standard procedure of preparing the Ksharasutra is adopted here. The standard Ksharasutra is prepared by 11 coatings of Snuhi Ksheera then 7 coatings of Snuhi Ksheera and Apamarga Kshara and then again 3 coatings of Snuhi Ksheera and Haridra Churna[5]. This Kshara Sutra is used in treatment of fistula in ano due to its cutting, curetting and healing effect as well as it controls the infection.

In this study, a case report of Fistula in Ano treated by Ksharasutra which was cured and no further complaints were found in the patient during follow up period has been highlighted.

Ayurvedic aspect of Bhagandar and Ksharasutra.

Acharya Sushruta described Fistula in Ano under the heading Bhagandara along with its symptoms, types and its management. The disease which creates Darana (tear) in the area of pelvis, rectum & urinary bladder (bhaga, guda, or basti) is called as Bhagandara and when these are not opened it's called as Bhagandara Pidaka.[6] A Fistula-in-ano is a chronic abnormal communication, usually lined to some degree by granulation tissue, which runs outwards from the anorectal lumen (the internal opening) to an external opening on the skin of the perineum or buttock (or rarely, in women, to the vagina).[7]

Kshara destroys the vitiated tissue and make them fall off. It is the most important among Shastra and Anushastra because it does functions like excision, cutting and scrapping, also
mitigates all the three doshas. Acharya Sushruta described that nadivrana (sinus) should be cut open by Kshara Sutra and also he said the same procedure should be adopted for Bhagandara.

MATERIALS AND METHODS
The patient who was diagnosed to be the case of Bhagandara was selected from the OPD of department of Shalya Tantra, SDMAH Udupi. The study was approved by the Institutional Ethical Committee, and written consent from the subject was taken before the study was conducted. A special case proforma was prepared including the details of case taking, general and physical examination, local examination, signs and symptoms till the follow up.

ASSESSMENT CRITERIA
Subjective
1. Pain
2. Burning sensation
3. Discharge
4. Itching

OBJECTIVE
1. Unit cutting time (UCT) = Total no. of days taken for cut through /Initial length of the tract
2. Tenderness

CASE REPORT
A male patient aged 44 years old, who is a house builder by occupation, got admitted on 2/8/2018 and recovered on 16/2/2019.

Chief complaints and duration
Patient complains of boil in the anal region with continuous pus discharge since 5 months.

History of present illness
Patient who is not a K/C/O DM and HTN was apparently normal 5 months back. Then he noticed a small swelling near to the anus which was little painful. Initially he neglected the condition. Later as the days passed the swelling changed into a boil and ruptured by itself giving out pus and blood discharge. Then it started to give out only pus discharge along with burning sensation. He also had associated complaints of pain which is moderate in nature and
of throbbing type and itching. Pain used to aggravate on sitting position. For these complaints he took medications from nearby physician, no much relief was found, hence for further better management he consulted OPD of our hospital.

**History of past illness**
Fistulectomy was done 4.5 months back at the same site.
Family history- Nothing significant
Drug history- not allergic to any known drug

**General examination**
Built- moderately built
BMI- 20
Pallor, icterus, cyanosis, clubbing, lymphadenopathy- absent
Vitals- pulse rate-74/min, respiratory rate- 18/min, B.P- 120/70mm of Hg, Temp- 98.6 degree F.

**Systemic examination**
CVS- S1 S2 heard, no added sounds
CNS- HMF- intact, sensory and motor system- NAD, cranial nerves- NAD
RS- NVBS heard, no added sounds
GIT- P/A soft, non-tender

**Local examination**
On inspection external opening was present at 3’o clock position, 3 cm lateral to the anal opening on the left side with pus discharge from the opening. Surrounding skin shows the scar mark of fistulectomy.

**On palpation (digital examination)**
Tenderness was present in and around the external opening. Induration of about 1cm was present around the external opening.

**P/R examination**
Hypertonic sphincter along with a button like depression was felt at 6’o clock position i.e. in the posterior mid line.
Proctoscopy findings
Anal mucosa was found to be normal.

Investigation- MRI OF FISTULOGRAM
Impression- transphincteric extension with internal opening at 6’o clock position.

BLOOD INVESTIGATION- HIV, HBSAG- negative, Hb- 14.5g/dL, Hba1c- 5.7%

PROCEDURE
Pre-operative note
The part preparation of the patient was done on the previous day of primary threading, followed by soap water enema at night and next day early morning. Patient was asked to be nil by mouth from the previous night 10pm. The pre-medications like Inj. XYLOCAINE 0.2cc test dose SC, Inj. TT 0.5ml IM were given the previous day of the procedure. Inj. ATROPIN 1amp IM was given ½ hour before the procedure. IVF 1 pint DNS was connected ½ hour before the surgery.

Operative note
Patient was made to lie down in lithotomy position. Painting and draping the part was done. Field block anesthesia was achieved using plain Xylocaine 2%. With the help of gloved fingers, 4 finger anal dilatation was carried out. A metallic probe was taken and probing was done through external opening along the tract to reach the internal opening i.e to the infected crypt. A plain cotton thread was passed to the eye of the probe and the probe was pulled out through the internal opening and thread was tied. Vitals of the patient and hemostasis were maintained throughout the procedure. Anal plug was placed and bandaging was done. Patient was shifted to post-operative ward.

Post-operative note
Patient was advised to be nil orally for 2 hours followed by the liquid diet and normal diet was advised after 1 day. Vitals were monitored for every ½ hour for 3 hours followed by every 2 hour for next 6 hours.

Watch for soakage. Patient was shifted to ward on next day and was discharged after 3 days.

Medications
Inj. GENTAMYCIN 40mg IV BD for 3 days
Triphala guggulu 1-1-1
Gandhaka rasayana 1-1-1
Godanti bhasma 25gm+ avipattikara churna 25gm- 1/2tsp BD
Triphala kwatha sitz bath BD

**Instruction to the patient at the time of discharge**
Visit to OPD after 1 week for changing the thread from plain cotton thread to Ksharasutra.

**Follow up**
Patient was asked to visit OPD for every 1 week for the changing of Ksharasutra till the track gets completely cut through. Oral medications were given throughout the period along with sitz bath which was advised 2 days after changing of Ksharasutra each time. Patient was asked to do his routine job, regular exercise and to avoid spicy, oily foods till the tract gets healed.

**ORAL MEDICATIONS**
1) TRIPHALA GUGGULU (450mg) 1TID
2) GANDHAKA RASAYANA (250mg) 1TID
RESULT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before treatment</th>
<th>After treatment</th>
</tr>
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<tbody>
<tr>
<td>Subjective-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>Burning sensation</td>
<td>Present</td>
<td>Absent</td>
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<td>Discharge</td>
<td>Present</td>
<td>Absent</td>
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<tr>
<td>Itching</td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>Objective-</td>
<td></td>
<td></td>
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<tr>
<td>Length of the track</td>
<td>13cm</td>
<td>0cm</td>
</tr>
<tr>
<td>Tenderness</td>
<td>Present</td>
<td>Absent</td>
</tr>
</tbody>
</table>

DISCUSSION

Sushruta described the treatment of anorectal diseases as bheshaja, ksharakarma, agnikarma and Shastra karma. In modern medicine treatment like fistulotomy, fistulectomy, seton ligation are indicated. These treatments have more recurrence rate and post-operative complications like hemorrhage, pain, delayed healing etc. In comparison to Modern Treatment Ksharasutra ligation is better due to its minimal complications and less recurrence. Even fecal incontinence and anal stricture are not seen in this case

Mode of action

The Apamarga Kshara produces debridement by its hygroscopic nature. Snahi ksheera also produces debridement by the proteolytic enzymes present in it. It has sticking property by which more fine powders of Apamarga Kshara is held and thus resultant action of debridement is excessively potentiated. Haridra churna possess a week antiseptic, antihistaminic property. In our classics it is said to provide natural skin luster. Thus the proper cutting and complete healing of fistula tract is achieved by the ksharasutra.

CONCLUSION

The incidence of fistula in ano is increasing now a day due to improper life style and lack of fibrous diet. The management of anorectal diseases need a complete knowledge of anorectal anatomy (especially regarding the Cryptoglandular theory) and pathophysiology. Also it needs to be diagnosed early so that appropriate treatment can be given without delay. Ksharasutra helps in removal of debridement and also prevent from bacterial infections. Ksharasutra at a time provides both cutting and healing so we can use it in any type of fistula tract which many a times not achieved by the modern surgical procedures. So we conclude that in fistula in ano ksharasutra treatment is a better option due minimum complication and patient can resume normal activities earlier.
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