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## A Clinical Study on the efficacy of Kshara Sootra compared to fistulectomy in Bhagandara

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### ABSTRACT

Fistula In Ano is a tract lined by graulation tissue which opens deeply in the anal canal or rectum and superficially on the skin around the anus. It is usually inflammatory in origin and open at either end in surgery it implies a chronic granulation tract communicating two epithelial line surface. In Ayurveda, Bhagandara is a condition which causes Darana of Bhaga, Guda and Vasti. A painful and suppurated Pidika in the region of Guda, on bursting leads to Bhagandara. Bhagandara is a having only surgical treatment in modern surgery and In Ayurveda there are many surgical and parasurgical methods for the treatment of Bhagandara. Out of all methods today fistulectomy in modern surgery and Ksharsootra therapy in Ayurveda are widely used techniques. The positive feedback of Ksharasootra therapy over fistulectomy has encouraged me to do research work and conduct the study on the advantages and distadvantages of the both the methods.

Key words: Bhagandara, Fistula-in-Ano, Ksharasootra Therapy, Fistulectomy.

#### INTRODUCTION

The number of patients in surgical out patient depertment in Ayurveda College are of ano-rectal disorders out of these patients fistula-in-ano is again high in number. The most commonly used procedure for Bhagandara (fistula-in-ano) in modern surgery is fistulectomy and which is having disadvantages like recurrence of fistula, long stay in hospital, highly expensive compare to Ksharasootra Therapy in Ayurveda has many advantages like no hospital stay, expenssive, no recurrence and minimum

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disadvantage like long trearment, repeated visit to the hospital.

So to study the advantages and distanvantage of both the therapy on the clinical grounds the proposed study is undertaken.

#### **OBJECTIVE OF THE STUDY**

To study the efficacy of Ksharasootra therapy compared to fistulectomy in Bhagandara.

#### **MATERIALS AND METHODS**

#### **Materials**

- 1. Randomly selected sixty patient of Bhagandara (fistula-in-ano)
- 2. Kshara sootra prepared from-
  - Linen Barbour No. 20
  - Apamarga Kshara (i.e. water soluble ash extract of Achyaranthus Aspera)
  - Snuhi Ksheera (i.e. latex of Euphoria Nerri)
  - Haridra Choorna (powder of Curcuma Longa)
  - As per the standards.

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3. Instruments required for fistulectomy.

#### Method

#### **History taking**

Through history of the complaints of the patients is taken in their chronological order. Each and every patient is carefully examined clinically for general, systemic and local examinations.

#### **Local Examination**

This being the most important aspect during the assessment of the patients, is carried out very carefully. With prior consent either lithotomy or left lataral position was given to the patients under proper illumination. Local examination i.e. per rectal exmination is carried out and points were noted as below;

#### 1. Inspection

- Position of the external opening.
- Probable position of the internal opening according to the Goodsal'sl rule.
- Discharge from the external opening Pus/pus with blood/serous/fecal matter.
- Tone of the sphincters, sentinel tags, external haemmorhoids, scars of previous operation etc.

#### 2. Palpation

- Local tempature.
- Tenderness.
- Fluctuation and area of induration.
- Fibrous fistulous tract and its course.

#### 3. Pre-rectal digital examination

- Tone of the sphincters.
- Sight of inflammation.
- Feeling of internal opening.
- other findings

#### 4. Proctoscopy

- Signs of inflammations.
- Internal haemorroids or any growth.
- Internal opening.

#### **Laboratory Investigation**

#### 1. Fistulogram

Fistulogram involves the injection of radiographic contrast through a small catheter placed into the external opening.

#### 2. Blood

- Haemoglobin .
- Total Leucocytes Count.
- Differtial Leucocytes Count.
- Erythrocytes Sedimentation Rate.
- Bleeding Time.
- Clotting Time.
- Random Blood Sugar Level.
- HIV.

#### 3. Urine

- Albumin.
- Sugar.
- Microscopic.

#### **Inclusion Criteria**

- 1. All the patients of age above 20 years of age and below 60 years.
- Patients having recurrence of fistula-in-ano will be selected.

#### **Exclusion Criteria**

- 1. Patients with multiply fistulas in ano.
- 2. Patients with fistulous tract having connected with other viscera like urinary bladder, etc.
- 3. Patients of high anal fistula were not selected.
- 4. Patients having malignancy and hiv.

#### Methedology

The sixty patients were randomly divided into two groups.

- 1. Group A: Ksharasootra Ligation
- 2. Group B: Total excision of fistula (fistulectomy)

Informed written consent of both the groups was taken before the commencement of treatment.

#### **Group A: Ksharasootra Ligation**

#### **Pre-operative**

Part preparation

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- Xylocaine test done
- Injection tetanus toxide ½ cc i.m.
- Enema in the morning
- Patients were kept NBM.

#### **Operative**

The patient is made to lie in Lithotomy position and cleaned with antiseptic lotions and draped with sterile towels and anorectal ring block / pudendal nerve block was given. Using slit proctoscope with xylocaine gelly inserted in anus and internal opening was visualised by pushing the methylene blue or hydrogen peroxide with betadine from external opening. A tray containing sterilized instruments including specially designed metal probes of different sizes, is kept ready on the right side. First minimal dialation of the anus was carried out and then the index finger of the left hand is gently introduced into the rectum and the inner opening of the fistula is located. The selected probe is then passed through the external opening of the track and is slowly pushed in the direction of least resistance. The tip of the probe is guided by the finger in the rectum in order to avoid formation of a false passage. Care is taken to explore the entire length of the fistula. The probe is thus guided into the anal canal through the internal opening of the tract and is finally brought out of the anal aperture by rotating the handle of the probe slightly or by depressing it. A plain fresh and sterilized thread is threaded through the projecting eye and the probe pulled out thus leaving thread in fistulous tract. The two ends of the thread are tied outside the anal orifice firmly. The wound is properly dressed by 't' bandage method. The initial tract length was recorded and considered for the obsevation parameter of Group A.

#### **Post-operative**

- Tab. Nimbadi Guggulu 2 tid.
- Tab Triphala Guggulu 2 tid.
- Trivrut Leha as laxative was given.
- Patient given discharge in the evening.
- Changing of the thread was done on second day.

#### Group B - Total excision of fistula.

In this group all the patients were treated with the total excission of fistula. For this, patients of this group were admitted in the IPD of TMAE'S Ayurveda Medical College and Hospital, Hospet.

#### Follow-Up

Follow up readings of patients of both the groups were taken weekly. Observational parameters including length of the thread, discharge and pain were recoded at each and every follow-up in the case record format.

#### **Observation parameters**

#### Length

**Group-A**: Length of the thread is recoded in centimeteres at each and every follow up and is considered as the length of the tract.

**Group-B**: Original tract length of the fistula, before fistulectomy and of the fourth followup was considered.

#### Discharge

Discharge from the fistula is recorded in the form of,

- No Discharge 0
- Mild discharge, single pad is sufficient per day 1
- Moderate discharge, 2-3 pads are necessary per day - 2
- Profuse discharge, more than three pads are necessary per day - 3

The pads measured 3 inches by 3 inches by 1 cm (thickness).

#### Pain

- Analgesics required only at the time of changing Ksharsootra or dressing - 0
- Analgesics required twice a day after changing Ksharasootra or dressing - 1
- Analgesics required twice a day for 2 days changing Kshrasootra or dressing - 2
- Analgesics required twice a day for more than 2 days - 3

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#### **Expenditures**

Expenditures are calculated as hospital change and medicine required through out procedure.

#### **Hospital Stay**

Hospital stay is calculated in days.

#### **Criteria for cure**

- 1. Fistulous tract is completely cut through and healed.
- 2. No pus or any sort of discharge from the healed scar of the fistula.
- 3. No pain at the site.
- 4. No per rectal discharge.

#### **OBSERVATIONS AND RESULTS**

The number of patients according to sex, in both the group is same i.e. 29 (96.66%) Male in both the group and 1 (3.33%) Female in both the group. Both the groups had similar type of bowel habits i.e. 66% patients had regular bowel habit and 33.33% patients had irregular bowel habits. Out of 60 patients, the maximum number of patients (11) presented with a fistula having its external opening at 5 'O' clock, followed by 9 patients at 3 'O' clock and 8 patients at 1 'O' clock. No patients is found with fistulous external opening at 4 'O' clock position.

In comparision to length healed in 4 weeks, it was observed that both Group A and Group B was statistically significant at 5% level of significance (p<0.05). There was decrease in discharge in both the groups which was statistically significant at p<0.05. There was decrese in the Pain in both the group, which was statistically significant at p<0.05.

#### **DISCUSSION**

A total sixty patients of fistula-in-ano were selected for the study which includes Group A and Group B. The patients in Group A were treated by Ksharasootra Ligation and the patient in Group B were treated by fistulectomy. The incidence of fistula was more common (66.66%) in the age group 15-40 years, while

it was less common (33.33%) in the age group 41-60 years. However, fistula is a disease of the middle age.

The incidence of fistula was more in males (96.66%) whereas considerably less in females (3.33%). This may be attributed to the number and size of the anal glands which are greater in males over females. It was also recorded that incidence of fistula having nonvegetarian diet was much more, as 85% of the patients were having non-vegetarian diet, while only 15% of the patients consumed vegetarian diet. The bowel habit of 66.66% of the patients was regular whereas it was found to be irregular in 33.33% of the patients. The nature of work of 43.33% of the patients was sedentary, while it was non-sedentary in 56.66% patients. The number of patients with recurrent fistula was found to be 23.33% only and with non recurrent fistula it is 76.66%. Maximum number of patients (18.33%) presented with a fistula having its external opening at 5 'O' clock position followed by some at 3 'O' clock (15%) and at 1 'O' clock (13.33%). No patient presented with fistulous external opening at 4 'O' clock position.

The mean length healed of the fistulous tract in Group A (*Ksharasootra* Group) was found to be 4.4cm in 4 weeks and in Group B (fistulectomy Group) it was found to be 3.5cm in 4 weeks. The discharge of the Group B increased in first week and was steady for next week there after gradually it decreased. The discharge of Group A increased mild in first week and later on decreased.

The discharge of both the group was found to be increased in the first week after the application of *Ksharasootra* and Fistulectomy. The overall discharge of the Group B was found to be higher than Group A, that may be due to the wide wound of the excised fistula. The difference in discharge between the day of commencement and the 4<sup>th</sup> followup in both the groups was found to be statistically significant.

The pain of the Group A was increased in first week remained steady for next week and gradually decreased. While the pain of the Group B increased in first week and decreased upto the healing. The pain of the Group B was increased in first two weeks due to

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large excised wound. The overall pain in Group B was found to be greater than Group A, that may be due to large excised wound of the fistula and inflammatory reaction. The pain in the Group B becomes further low as the healthy granulation was formed.

#### **CONCLUSION**

The Ksharasootra therapy is more effective in socioeconomic point of view it is cheaper and having minimum hospital stay, no recurrence, no other complications were noted in Ksharsootra treated group. Hence the Ksharasootra therapy recommended for the treatment of Bhagandara. The length cut and healed of fistulas track in Group A was significantly more than Group B. This clearly suggests that the duration of treatment of the fistula was considerably reduced in the Group A. The results were quite encouraging as there was no recurrence after cutting and healing of fistula in Ksharasootra ligation group.

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