



COMPARATIVE ROLE OF SQUATTING POSTURE & STRAIGHT POSTURE OF DEFECATION IN FISSURE-IN-ANO ALONG WITH AWAGAHA SWEDANA (SIT'Z BATH)

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ABSTRACT

The present investigation compared the role of squatting posture (Indian toilet) with straight posture (western toilet) system in fissure-in-ano along with *Awagaha Swedana* (Sit'z bath). Total 50 patients were selected suffered with disease and divided into two groups (25 in each group). Group-A, patients were advised to use Squatting posture; while patients of Group-B were advised to use straight posture for defecation along with *Awagaha Swedana* (Sit'z bath). All patients were advised to follow up *Pathya-Apathya* in terms of *Ahar –Vihar*. The pain relief on 15th day was observed 81% & 59% in Group-A & Group-B respectively. Relief in burning sensation, incomplete senses of defecation, easy and early evacuation was observed more in Group-A as compared to Group-B. Further continuation of study showed significant healing (79%) in Group-A as compared to Group-B (51%). Study proved that use of Indian system of toileting is more beneficial in fissure-in-ano as compared to straight posture system. Group-A patients were cured early as compared to patients of Group-B.

KEYWORDS: Fissure-in-ano, *Awagaha Swedana*, *Parikartika*, *Guda*.

INTRODUCTION

The traditional text of Indian system of medicine described fissure-in-ano as condition of cutting and burning pain at *Guda*, it is also termed as *Parikartika* in Ayurveda. As per *Shushruta* it comes under *Ashta-mahagada* and Ayurveda considered *Parikartika* as complication of *Virechana Vyapat*, it is also associated with *Garbhini Vyapat* & *Vataja Atisara*. Physiologically when *Vata* covered with faeces then stool becomes hard which leads severe pain on defecation and this condition of constipation delayed evacuation; which over all causes *Parikartika*. *Chakrapani* mentioned synonyms of *Parikartika* as a *Kshatgud* and *Vikartika*. Modern science described fissure-in-ano as injury of somatic nerve which supply to the anal region may be caused by trauma to inner lining of the anus, diarrhea, dry bowel movement and ulcerative colitis. It is classified into two varieties; acute and chronic fissure-in-ano. Acute condition involves inflammation of the anal mucosa while chronic cases associated with conditions like; external and internal hemorrhoids, which needs surgical intervention.

Ayurveda emphasized surgical treatments for disease along with non-surgical medical managements such as;

Kshara Karma, *Panchakarma*, external therapies, internal medications, food and life style modification.^[1-5] Use of Indian system of defecation means squatting posture having properties of completely opening of anal sphincter which results in comfortable evacuation of scabilya and overall relief in fissure-in-ano.

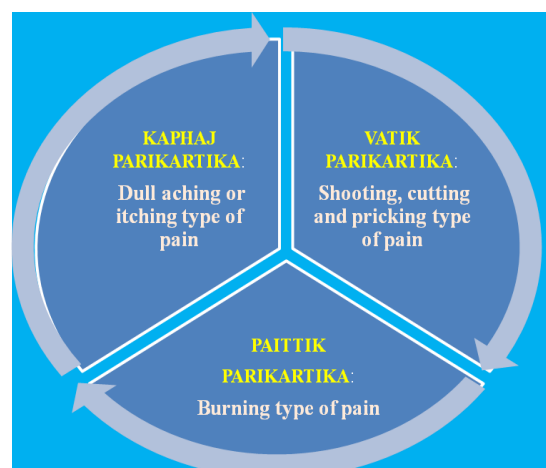


Figure 1. Predominance of anal fissure pain as per vata, pitta and kapha dosha prakriti.

Aim: To compare the role of squatting posture with straight posture for toileting (defecation) in fissure-in-ano.

Methods: Total 50 patients were selected suffered with disease and divided into two groups (25 in each group). Group-A, patients were advised to use squatting posture; while patients of Group-B were advised to use straight posture for defecation.

Selection of patients

The patients of fissure-in-ano were registered irrespective of age, sex, occupation and religion. A well written informed consent was obtained from all the participants explaining the details about the treatments given to them.

Inclusion criteria

Patients possessed classical symptoms of *Parikartika* like fissure bed; pain, incomplete sence of defecation, straining during defecation & bleeding in ano were included in the study between the age group of 18 to 55 years.

Exclusion criteria

Patients possessed carcinoma of ano-rectum; and congenital anal stenosis were excluded from this study. Patients suffered with other diseases such as; HIV infections, hepatitis-B & other infections and patients of age below 18 years & more than 55 years were also excluded.

Investigations

Hb%, total leucocyte count, bleeding time, clotting time, blood sugar, HIV, hepatitis-B and stool examination, etc. were carried out before the treatment as per requirement.

Materials & Methodology

The present investigation was performed at Dept. of Shalya, S. V. N. H. T. Ayurved College and Hospital Rahuri Factory, Rahuri, Maharastra. In Group-A, 25 patients and in Group-B, 25 patients of diagnosed cases of *Parikartika* were registered and advised to sitz bath.

Awagaha Swedana

It involves pouring of body part into a tub (plastic circular having capacity of 30 liter containing medicated

Dravya called as *Awagahaa* type of *Swedana*, this warm water sitz bath reduces the pain (as *Vatanashak*, *Vedanahar*) in anal region and maintain muscle tone along with antiseptic condition which promote healing of fissure-in-ano.^[6]

Common procedures in both Groups

Appropriate analgesic and antibiotic were given for initial 3 days and *Avagaha Swedan* (warm water sitz bath) was advised 2 times a day. They were subjected to local application of *Yashtimadhu Ghritta* in the anus by cotton swab particularly at the fissure twice a day for 15 days after hot sit'z bath daily two times. Every patient was instructed to take hot water sitz bath for 15 minutes, after that *Yashtimadhu Ghritta* was given for local application in anal region.

Advise to use specific toileting

Patients of Group-A were advised to use Indian system of toileting means squatting posture while patients of Group-B were advised to use western system of toileting means straight posture along with other advised medical management i. e; *Avagaha Swedan* (warm water sitz bath).

Duration of treatment

Patients were assessed on a weekly interval up to 4 weeks.

Follow Up

Follow up was taken for 15 days interval up to one month.

Assessment Criteria

Following assessment criteria were adopted as mentioned in **Table 1:**

- Pain
- Bleeding
- Healing of fissure
- Straining during defecation

Table 1. Assessment criteria and ranking of descriptive symptoms.

S. NO.	DESCRIPTION	RANK
Pain Assessment		
1	No pain	0
2	Pain at the time of defecation	1
3	Prolong pain at the time of defecation	2
4	Unbearable and continuous pain most of the time	3
Bleeding Assessment		
1	Present	1
2	Absent	0
Healing Assessment		

1	Complete healed	0
2	Partially healed wound	1
3	Wound with discharge	2
Straining during defecation		
1	No straining during defecation	0
2	Mild straining during defecation	1
3	Remarkable straining during defecation	2

Statistical test

For the assessment of the results of study statistical analysis (t-test) was performed.

OBSERVATIONS

Most of the patients were belongs form age groups of more than 40 years and more male patients were registered as compared to female patients. The Maximum patients were found to have problem like; indigestion and constipation and obstructed defecation syndrome. The patients were having moderate type of *Kshudha*, *Pipasa* and *Agni* while 55% were having *Krura* type *Koshtha* along with disturb bowel physiology. *Vattapittaja Prakriti* was also observed in most of the patients. The prevalence of fissure at posterior position is more as compared to prevalence of sentinel tag and spasmodic anal sphincter. The patient were also observed to have irregular eating habits and disturb life style and these factors may be attribute to the problem associated with disturb bowel physiology.

RESULTS AND DISCUSSION

The pain relief on 15th day was observed 81% & 59% in Group-A & Group-B respectively. Relief in burning sensation and discharge was observed more in Group-A as compared to Group-B. Further continuation of study showed significant healing (79%) in Group-A as compared to Group-B (51%). The relief in symptoms were found to be statistically significant ($P < 0.001$) after treatment in both groups but patients of Group-A benefited more as compared to Group-B as shown in **Table 2**. Various symptoms of disease were observed like obstructed defecation syndrome along with causative factors like; constipation, irregular bowel habits and disturbed dietary habits. Most cases were registered with

posterior mid line anal fissure as compared to anterior mid line. Most of patients were complaints of pain in anal region during and after defecation along with constipation. The treatment protocol encompasses less complication and easy acceptability. Observation in present study proves that use of squatting posture for defecation helps in management of fissure in ano while use of straight posture does not offers significant relief symptomatically. Study suggests that the posture of seating for defecation affect disease prognosis significantly since squatting position is natural which open sphincter and support bowel movement while straight positioning is not very comfort for the patient of fissure in ano. The natural squatting posture of Indian system of defecation reduces pressure around the anus hence patient encounter less symptomatic prevalence of anal fissure. Study also observed that patient of Group-B complaint more about irritation and sensitization around fissure on defecation while patient of Group-A reported less inflammation and swelling around fissure. Squatting posture increases abdominal pressure which result in early, easy and completely evacuation of scabilya which support to relive spasm of anal sphincter and promote wound healing. Study supports various beneficial effects of squatting posture of defecation such as; unnecessary staring during defecation and successfully prevents obstructive defecation syndrome in fissure in ano.

The patients of Group-B those were used western system of toileting (straight posture) observed complications hyper sensitization that may be due to the heavy force of water which causes damage to skin and hair follicles. Improper cleaning of anal region after defecation also increases chances of infections and delay healing process.

Table 2. Results of study.

S. No.	Signs and symptoms	X	SD	SE	P	Inference
1	Pain	0.711	0.443	0.082	< 0.001	Significant
2	Discharge	0.821	0.411	0.071	< 0.001	Significant
3	Healing	0.622	0.344	0.062	< 0.001	Significant
4	Straining during defecation	0.755	0.531	0.053	< 0.001	Significant
% of Relief in Symptoms						
S. No.	Symptoms	Group-A		Group-B		
1	Pain	81		59		
2	Discharge	77		54		
3	Healing	79		51		
4	Straining during defecation	69		44		

CONCLUSION

The present investigation compared the role of Squatting posture with straight posture system in fissure-in-ano along with *Awagaha Swedana* (Sit'z bath). The use of Squatting posture (Squatting posture) has definite advantage in the treatment of fissure in ano in terms of relief of cardinal symptoms. Lastly the experimental modality was found to be very effective in fissure in ano. Finally it can be concluded that patient of anal fissure should use squatting posture for defecation (Squatting posture) instead of straight posture of straight posturing to get most of the beneficial effects of medical treatment.

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