



**A CLINICAL STUDY OF LATERAL ANAL SPHINCTEROTOMY AND SAMANGADI
TAILA IN THE MANAGEMENT OF FISSURE-IN-ANO**

Dr. Amit Kumar Sharma^{1*} and Dr. Priyanka Sharma²

¹Lecturer, Dept. of Shalya Tantra, Shekhawati Ayurvedic College, Pahadi Road, Pilani, Dist. Jhunjhunu, Rajasthan. India.

²PG Scholar, Dept. of Ayurved Samhita and Siddhant, Govt. Ayurvedic College, G.E. Road, Raipur, Chhattisgarh, India.

***Corresponding Author: Dr. Amit Kumar Sharma**

Lecturer, Dept. of Shalya Tantra, Shekhawati Ayurvedic College, Pahadi Road, Pilani, Dist. Jhunjhunu, Rajasthan. India.

Article Received on 14/10/2016

Article Revised on 04/11/2016

Article Accepted on 25/11/2016

ABSTRACT

In the era of fast life style and fast food, there is change and irregularity in diet and diet timings, which disturbing the digestive system which results in too many diseases like Ano-rectal disorder amongst them Fissure-in-Ano is the most common and most painful disease in all Ano-rectal disorder. An alarming rise in the incidence of the disease Fissure-in-Ano and unknown satisfactory remedies evolved so far, has given an importance to find out a suitable solution, with better results. In present study, the clinical trial of the Lateral anal Sphincterotomy Procedure and drug Samangadi Taila on 30 patients under the three groups were done. The study shows that use of Lateral Anal Sphincterotomy with regularly local application of Samangadi taila has a very effective role in the treatment of fissure-in-ano.

KEYWORDS: Fissure-in-Ano, Lateral Anal Sphincterotomy, Samangadi Taila.

INTRODUCTION

Today's fast life style, the most of the population has faces many Ano-rectal problems, in which Fissure-in-ano is the most common condition. Fissure-in-ano as the name suggests a condition which is related to the anal region showing the presence of fissure or a crack. The prominent symptomatology of this condition includes severe pain during and following defaecation. Sometimes it is associated with bleeding, mucous discharge, pruritus and in chronicity Sentinel pile mass may be present.

The common causes are constipation, spasm of internal sphincter and when too much of skin is removed in haemorrhoidectomy or surgeries of fistula-in-ano. Similarly secondary causes like ulcerative colitis, Crohn's disease, syphilis and tuberculosis have also been held responsible for the formation of the disease fissure-in-ano.

This is a medico surgical condition. Medical management is often said to be conservative and surgical intervention is the ultimate choice in chronicity. The treatment of fissure in Ano depends on type of disease. In acute fissure-in-ano primary treatment is analgesics, stool softener and soothing ointment. In chronic fissure treatment is anal dilatation, sphincterotomy, fissurectomy are in vague but the complication of these procedures like recurrence, incontinence and pruritus are even more

agonizing than the actual pathology. Thus a proper line of treatment is still lacking. Today, the world is looking towards India for answers of many unsolved problems. Various topical remedies like ointments are available for local application for wound healing in the market for fissure-in-ano. The good healing of fissure is getting in few days, but higher recurrence rate are main problem. This problem occurs due to spasm of Internal Sphincter. So Spasm of the internal sphincter and nonhealing of fissure are main problems which needs proper management for permanent relief. For this, it requires proper management to release spasm and healing of fissure by Lateral Anal Sphincterotomy which is procedure of choice in present time. It is simple and most effective surgical management to release spasm.

Acharya Sushruta has mentioned Samangadi Taila is having ingredients with Vrana Shodhana and Ropana properties, which help the Vrana (wound) to heal rapidly (Su.Chi. 2/73, 74). It is economic by virtue of less number of easily available ingredients and the formation of this taila is easy. Hence, they are selected for the clinical evaluation in the present study.

AIMS AND OBJECTIVES

1. To prove our Ayurvedic treatment described in Samhitas like different kind of oils for better healing etc.

2. To access the effect of both Lateral Anal Sphincterotomy and Samangadi Taila clinically in Fissure-in-ano.
3. To evaluate the effectiveness of both technique and medicine in order to improve the quality of therapy available to the patient.
4. To give best treatment to patient without any complication or hazard.

MATERIAL AND METHODS

1. Source Of Data

❖ **Patients** - The minimum numbers of patients included for the open trial were 30. The patients from the O.P.D. and I.P.D. of Govt. Ayurvedic College, Raipur were selected irrespective of their age, sex, religion, occupation etc. randomly for the present study. They were examined clinically in detail on the basis of sign and symptoms given in the Ayurvedic and Modern text of surgery.

❖ **Drug** - The drug 'Samangadi Taila' was prepared in the Rasashatra and Bhaishajya Kalpana department of Govt. Ayurvedic College, Raipur according to classical Ayurvedic texts.

❖ **Surgical Procedure** - The Lateral Anal Sphincterotomy was done in 'open method' under the Local Anaesthesia described in modern surgical texts.

❖ **Research Proforma** - All the findings were collected in specially designed Proforma for easy assessment of data's.

2. Grouping

Total 30 patients has been randomize selected for detailed study. Those 30 patients were divided

randomize into three groups containing 10 patients in each group.

Group I - Lateral Anal Sphincterotomy.

Group II - Samangadi Taila – local application daily.

Group III - Lateral Anal Sphincterotomy with Local application of Samangadi Taila daily.

3. Inclusion Criteria

❖ Patients diagnosed as having Fissure in Ano with or without sentinel pile were included in the study.

❖ Patients of both sex between the age group of 18 and 60 years were included.

❖ Patients of all prakrities are included in the study.

4. Exclusion Criteria

❖ Abscess

❖ Fistula-in-ano

❖ Post-operative Haemorrhoids

❖ Tuberculosis

❖ Anal malignancy

❖ Immunological diseases like Crohn's disease, Ulcerative colitis etc.

❖ Sexually Transmitted Diseases, HIV etc.

Clinical Assessment Criteria

The effect of treatment was assessed subjectively by clinical observation on the basis of relief in symptoms of the disease and objectively on the basis of relief in sphincter spasm and healing period. For this purpose subjective and objective parameters were given scores according to their severity and period of relief.

Table 1. SUBJECTIVE SCORES

Defaecation	Tearing Pain during defaecation	Score
Easy & Smooth defaecation	No Pain	0
Require some straining	Mild Pain	1
Require more straining	Moderate Pain	2
Hard stool & require more straining	Severe Pain	3
Blood on Stool (Bleeding)	Persistence Perianal Pain	Score
No bleeding	No Pain	0
Sometimes Streak of blood present on surface of Stool	Pain less than 15 minutes	1
Blood present on surface of stool	Pain less than ½ hour	2
Blood present with drops of blood after defaecation	Pain more than ½ hour	3

Table 2. OBJECTIVE SCORES

Sphincter spasm	Healing Period	Score
No Spasm (Sphincter relax)	Less than 15 days	0
Mild Spasm (Patient allow digital examination with mild pain)	16 day to 1 month	1
Moderate Spasm (Patient allow digital examination with more pain)	More than 1 month	2
Severe Spasm with Pain (Patient doesn't allow for digital examination)	No Healing	3

DISCUSSION ON THERAPEUTIC PROCEDURES • Lateral Anal Sphincterotomy

The aim of this procedure is to decrease spasm of the internal sphincter by dividing a portion of muscle away from the fissure itself usually either in the right or left lateral positions.

The pathology in Fissure-in-ano is spasm of the sphincter muscle and slight narrowing of the anal canal. This phenomenon is due to the formation of ulceration in anal mucosa. During the act of defecation when the anal canal is stretched the pain will aggravate which will in turn cause spasm of the sphincter muscle. Thus the vicious cycle is formed. This process has broken this vicious cycle by partially dividing the sphincter muscle and relaxes the anal canal. The relaxed anal canal will in turn allow the ulcer to heal. Relaxed anal canal will accommodate stools minimizing trauma over the anal canal and allows the ulcer to fast heal.

Samangadi Taila: This formulation is described in 2nd chapter of Chikitsa sthana of Sushruta Samhita. Acharya Sushruta has described that this combination is ideal for vranaropana (wound healing).

Mode of Action: The Samangadi Taila is having vranaropana, and shodhana properties. The effects of this can be explained as following -

The Manjista, Haridra, Bharangi, Triphala, Vidanga, Katuki, Haritaki, Guduchi and Karanja ingredients are having vranashodhana, vranaropana, shothahara, vedanasthapana properties.

• Smoothing effect with vranaropana is achieved by Tila Taila.

Tutha i.e. copper sulphate reduces the cellular hypertrophy of the wound and stimulates the formation of granulation tissue which causes fast healing.

The drugs are having mainly tikta pradhana rasa, thus tikta rasa act as pitta shamaka which intern help in reducing daha which is the peculiar symptom of pitta vriddhi. The natural essential oils in the formula are proven to penetrate into cell membranes to provide immediate relief from anal fissures.

RESULTS AND DISCUSSION

Straining during Defaecation: The complete relief (100%) in Group C compare then group A (74.07%) and group B (76.19%). It shows that relief from straining is fast and maximum due to relaxation of anal canal by lateral anal sphincterotomy and fast healing of wound by application of Samangadi taila which facilitate the smooth defaecation.

Table 3. Showing the Effect of Therapy in Various Sign and Symptoms After Treatment By Statistical Analysis in Group A.

S.N.	CRITERIA'S	N	MEAN			% RELIEF	S.D.	S.E.	't' VALUE (Paired)	'P' VALUE	REMARK
			B.T.	A.T.	Diff.						
1	Defaecation	10	2.7	0.7	2.0	74.07%	0.94	0.29	6.70	<0.001	H.s.
2	Pain	10	2.3	0.2	2.1	91.30%	0.73	0.23	9	<0.001	H.s.
3	Bleeding	10	1.5	0.1	1.4	93.33%	0.51	0.16	8.57	<0.001	H.s.
4	Persistent pain	10	1.7	0	1.7	100%	1.06	0.33	5.07	<0.001	H.s.
5	Sphincter spasm	10	2.2	0.3	1.9	86.36%	0.73	0.23	8.14	<0.001	H.s.
6	Healing time	10	3	1.6	1.4	46.66%	0.69	0.22	6.33	<0.001	H.s.

N – Number of Patient, B.T. – Before treatment, A.T. – After treatment, S.D. – Standard Deviation, S.E. – Standard Error, P – Probability, H.S. – Highly Significant, Degree of Freedom – 9.

Table 4. Showing the Effect of Therapy in Various Sign And Symptoms After Treatment By Statistical Analysis in Group B

S.N.	CRITERIA'S	N	MEAN			% RELIEF	S.D.	S.E.	't' VALUE (Paired)	'P' VALUE	REMARK
			B.T.	A.T.	Diff.						
1	Defaecation	10	2.1	0.5	1.6	76.19%	0.96	0.30	5.23	<0.001	H.s.
2	Pain	10	2.3	0	2.3	100%	0.82	0.26	8.83	<0.001	H.s.
3	Bleeding	10	1.8	0.1	1.7	94.44%	0.94	0.3	5.66	<0.001	H.s.
4	Persistent pain	10	1.5	0	1.5	100%	0.97	0.31	4.88	<0.001	H.s.
5	Sphincter spasm	10	2.1	1.4	0.7	33.33%	0.67	0.21	3.28	<0.01	S.
6	Healing time	10	3	1.3	1.7	56.66%	0.67	0.21	7.96	<0.001	H.s.

N – Number of Patient, B.T. – Before treatment, A.T. – After treatment, S.D. – Standard Deviation, S.E. – Standard Error, P – Probability, H.S. – Highly Significant, S – Significant, Degree of Freedom – 9.

Table 5. Showing the Effect of Therapy in Various Sign and Symptoms After Treatment By Statistical Analysis In Group C

S.N	CRITERIA'S	N	MEAN			% RELIEF	S.D.	S.E.	't' VALUE (Paired)	'P' VALUE	REMARK
			B.T.	A.T.	Diff.						
1	Defaecation	10	2.3	0	2.3	100%	0.82	0.26	8.83	<0.001	H.s
2	Pain	10	2	0	2	100%	0.81	0.25	7.74	<0.001	H.s.
3	Bleeding	10	2.2	0	2.2	100%	0.78	0.24	8.81	<0.001	H.s.
4	Persistent pain	10	1.9	0	1.9	100%	1.28	0.40	4.66	<0.01	S.
5	Sphincter spasm	10	2.3	0.1	2.2	95.65%	0.78	0.24	8.81	<0.001	H.s.
6	Healing time	10	3	0.6	2.4	80%	0.69	0.22	10.85	<0.001	H.s.

N – Number of Patient, B.T. – Before treatment, A.T. – After treatment, S.D. – Standard Deviation, S.E. – Standard Error, P – Probability, H.S. – Highly Significant, S – Significant, Degree of Freedom – 9.

2. Pain during defaecation

The complete relief (100%) in Group C and B compare then group A (91.03%). Clearly the effects of both procedure and taila in relieving the pain of the patients of fissure-in-ano were far fast and better.

3. Bleeding

The complete relief (100%) in Group C compare then group A (93.33%) and group B (94.44%). So it seems clearly due to relaxation of anal canal and smoothening by Samangadi taila was preventing the repeated trauma by faecal material and early relieve from bleeding.

4. Persistent Perianal Pain

The relief from persistent perianal pain were approximately same in all the groups (100%).

5. Sphincter Spasm

The patients of group C get maximum relief (95.65%) from Sphincter spasm other than group A (86.36%) and group B (33.33%). It was due to lateral anal sphincterotomy which is good technique to relieve Spasm but its needs expertise.

6. Complete Healing Period

In this present Study, good and fast healing was the main aim. The result reveals that complete healing of ulcer was fastest in group C.

Total % relief in all the three groups

According to study, the total percentage of relief in **Group A** was recorded **81.95%**, in **Group B** it was **76.77%**, and in **Group C** relief was highest **95.94%**.

This indicates that the both Lateral Anal Sphincterotomy and local application of Samangadi taila used in Group C is very effective and give approx permanent relief in managing of Fissure-in-ano as compare to Group A and B. Procedure used in Group A and application of Samangadi Taila used in Group B also posses the properties which can give much relive in the sign and symptoms of Fissure-in-ano.

CONCLUSION

Pain during defaecation is the main clinical feature of the fissure in ano. Other symptoms are constipation,

bleeding during defaecation and persistent perianal pain. The most problematic symptom of fissure-in-ano is sphincter spasm which is also the most common cause of recurrence of fissure after healing. The use of Lateral Anal Sphincterotomy with regularly local application of Samangadi taila has a very effective role in the treatment of fissure-in-ano, also in terms of earlier relief in cardinal and general symptoms and quick healing of ulcer to compare then alone use of surgical procedure or any topical application.

BIBLIOGRAPHY

1. Charaka Samhita: Agnivesh Rev. by Acharya Charaka and Dradhabela with commentary by Chakrapani.
2. Charaka Samhita: 'Charaka Chandrika' Hindi commentary, Vol. 1-2 – Dr. Bramhanand Tripathi.
3. Database on Medicinal Plants used in Ayurveda: part 1-8, 2005, CCRAS.
4. Sushruta Samhita: Ayurveda tatwa sandipika by Dr. Ambikadatta shashtri.
5. Sushruta Samhita: Acharya Dalhana - 'Nibandha Samgraha' Commentary – ed. by Y.T. Acharya.
6. The Ayurvedic Pharmacopoeia of India (1st edition).
7. Bennet and Goligher: Result of Internal sphincterotomy for anal fissure; British Medical Journal.
8. Current Surgical Diagnosis & Treatment (12th edition, Lange medical books).
9. Clinical Anatomy by regions: Recharad S. Snell (8th edition) K.Das: A practise Guide to Operative Surgery.
10. Diagnosis & Management of Ano-rectal Disease: Dr. Praveen Kumar & Dr. K.K. Sijoria.
11. Essential of medical Physiology (5th edition): K.Sembulingam, Jaypee Brothers Medical Publishers.
12. Farquharson's Textbook of Operative General Surgery: Farquharson & Moran.
13. Goligher, J.C.: Surgery of Anus Rectum and colon; Cassel, London.
14. Sabiston Textbook of Surgery: The biological basis of modern Surgical practise – Vol. 1-2 (18th edition)
15. Schwartz's Principles of Surgery: (8th edition) McGraw Hill medical publishing Division.