



## ROLE OF CASSIA FISTULA PACK IN FISTULA IN ANO

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**ABSTRACT** Application of Cassia fistula Pack (aragvadhadi varti) in the management of Fistula in ano i.e Bhagandara is well known. Sushruta has mentioned different types of Packs, for the management of sinus (nadi vrana) and Fistula in ano, to obtain cleanliness (shodana) and Healing (ropana) of tract. In his treatise, he has also mentioned cassia fistula pack for wound cleaning. All the ingredients of cassia fistula pack (cassia fistula, curcuma longa, valeriana wellichii, ghee and honey) possess antimicrobial (antibacterial and anti fungal) property which control infection within the fistula, and promotes healing. In this present study, 30 patients were diagnosed as cases of low level fistula in ano were treated with cassia fistula pack. There was a marked reduction in symptoms of pain, discharge, itching, length of tract and healing time. Thus the result was significant.

**KEYWORDS** : Fistula in ano, cassia fistula, wound healing, cleaning, sinus.

### INTRODUCTION

Fistula in ano is a common disease occurs in the ano rectal region. Acharya Sushruta, the Father of Surgery has included this disease as one among the Ashtamahagada.<sup>1</sup> At first, it present as abscess (pidika) around anus, and when it bursts out, it is called as fistula in ano. It can be correlated with fistula in ano, as described in western medical science. Fistula in ano is a tract lined by granulation tissue which opens deeply in the anal canal or rectum and superficially on the skin around the anus.<sup>2</sup> The word Bhagandara (fistula in ano) has got well versed name in today's world. Many researches are going on for the better line of treatment of fistula in ano. In the chapter of Chikitsa sthana of Bhagandara, Acharya Sushruta has advocated various means and measures for the treatment of fistula in ano.<sup>3</sup> Application of pack in the management of Fistula in ano is well known and various types of have been advised by Sushruta in the management of Nadi vrana. In the text he has also mentioned cassia packs for wound cleaning purposes.

In this study an attempt was made to treat the disease with the help of pack of cassia fistula. According to the text this pack has wound cleaning properties which heals the ulcer very soon.<sup>4</sup> There are lots of studies conducted on the packs of cassia fistula, but on the basis of literature review, it was seen that there is a need to explore the properties of cassia fistula pack in detail with special reference to low level fistula in ano, which is not done before. Hence it is important to find out effective constituents of cassia fistula pack that possess both wound cleaning and wound healing properties. Here we made an attempt to evaluate the efficacy of cassia fistula pack on fistula in ano.

### CLINICAL STUDY

Patients diagnosed to have low level fistula were randomly selected irrespective of age, sex, chronicity, marital status etc.; Patients with uncontrolled diabetes mellitus, tuberculosis, chron's disease, fistula secondary to other systemic disease like osteomyelitis etc were excluded.

### AIMS AND OBJECTIVES

To evaluate the efficacy of cassia fistula pack to manage low level fistula in ano.

### MATERIALS AND METHODS

#### Ingredients

1. Cassia fistula (Aragvadh majja)
2. Curcuma longa (Haridara)
3. Valeriana wellichii (Tagara)

4. Ghee

5. Honey

### METHOD OF PREPARATION OF CASSIA FISTULA PACK

Raw drug was collected, and preparation of cassia fistula pack was done at college pharmacy. Fine powders of curcuma longa and valeriana wellichii were mixed well with cassia fistula, Ghee and honey. Then the wicks were made manually of 2-3 inches in length and dried in sunlight. The wicks become dry and hard, they were stored in air tight container.

### SOURCE OF DATA

Patients, diagnosed cases of fistula in ano (low level fistula) were taken from OPD and IPD dept. of J.I.A.R hospital, janipur and nardani, Jammu, India.

**Sample size:** 30 patients

### METHOD OF COLLECTION OF DATA

It was the absolute pilot study, in which the patients were randomly selected from both the sex. A detailed proforma was prepared considering all the patients pertaining to history, signs and symptoms, examinations and investigations mentioned in allied science to confirm the diagnosis.

### CLINICAL STUDY

Patients diagnosed to have low level fistula were randomly selected irrespective of age, sex, chronicity, marital status etc. Patients with uncontrolled diabetes mellitus, tuberculosis, chron's disease, fistula secondary to other systemic disease like osteomyelitis etc were excluded.

### APPLICATION OF CASSIA FISTULA PACK

Patient was kept in lithotomy position. perianal region was cleaned with antiseptic lotions and draped. Suitable selected probe was passed through the external opening of fistula without putting any pressure on it, till it reach the end of the tract then the probe was taken out and the measurement of the length of the probe was done. After that same length of cassia fistula pack was taken and inserted into the same length of the fistulous tract. The length of the tract can be calculated by subtracting the length of pack, outside the tract from the total length of pack.

### ASSESSMENT CRITERIA

The assessment of relief

1. Pain
2. Discharge
3. Itching
4. Local tenderness
5. Length of the tract
6. Healing time

**GRADINGS**  
**GRADING FOR PAIN**

Grade 0 – No pain
Grade 1- Mild pain
Grade 2 – Moderate pain
Grade 3 – severe pain

**GRADING FOR DISCHARGE**

Grade 0 – No discharge
Grade 1 – Mild discharge
Grade 2 – Moderate discharge
Grade 3 – Severe discharge

**GRADING FOR ITCHING**

Grade 0 – No itching
Grade 1- Mild itching
Grade 2 – Moderate itching
Grade 3 – Moderately severe itching
Grade 4 – Severe itching

**GRADING FOR LENGTH OF THE TRACT**

Grade 0 – No tract
Grade 1 - Upto 1 cm
Grade 2 – 1.1 – 2 cm
Grade 3 – 2.1 – 3 cm
Grade 4 – 3.1- 4cm

**GRADING FOR LOCAL TENDERNESS**

Grade 0 – no tenderness
Grade 1 – Mild
Grade 2 – Moderate
Grade 3 – severe

Healing time will be assessed by total no of days taken for healing

**TABLE 1 EFFECT OF VARIATION OF DIFFERENT SIGNS AND SYMPTOMS OF FISTULA IN ANO**

Cardinal features	Mean score		Standard deviation		Mean difference	T	Degree of freedom	p
	Before treatment	After treatment	Before treatment	After treatment				
Pain	1.90	0.37	0.803	0.490	1.533	16.55	29	.00
Discharge	2.17	0.30	0.699	0.466	1.867	20.14	29	.00
Itching	2.33	0.57	0.661	0.568	1.767	13.29	29	.00
Local tenderness	2.03	0.33	0.765	0.479	1.700	17.40	29	.00
Length of tract	2.63	0.50	0.669	0.509	2.133	18.58	29	.00

**TABLE 2 - EFFECT OF VARIATION HEALING TIME**

Total patients	Maximum days	Minimum days	Mean	S.D	S.E
30	36	15	26.4	0.051	0.009

**TABLE 3: OVERALL RESULT OF THERAPY AND PERCENTAGE OF IMPROVEMENT**

RESULT	NO. OF PATIENTS	PERCENTAGE
Cured	4	13.33
Marked improvement	15	50.00
Moderate improvement	11	36.66
Total	30	100

**RESULT**

The study revealed that the incidence of fistula in ano was more common in age group 41-50 years, maximum number of patients were males, i.e. 53.35%. Regarding to the type of fistula, maximum patients were suffering from Intersphincteric, i.e. 16% followed by Subcutaneous 40% and Trans sphincteric 3.3%. In regard to the number of openings, maximum patients were having only one external opening i.e. 93.3% followed by two external openings, i.e. 6.7%. Regarding to the position of external opening, maximum no of patients were having external opening at 8o'clock and 11o'clock position i.e. 16.7% followed by 7o'clock position i.e. 13.3%, 5o'clock position i.e. 13.3% and 4o'clock position i.e. 3.3%.

**DISCUSSION**

Cassia fistula has Vatahara properties which reduces pain and inflammation and promotes healing. curcuma longa has Kaphvata shamaka and Pitta rechaka properties, therefore it reduces discharge which provides proper healing action on ulcers. It is relieves itching (kanduhara). It also has anti – inflammatory, analgesic and cleaning and healing(Shodhana – Ropana ) properties.Honey has Ushna Guna and Katu Vipaka pradhana, which is suitable for scrapping the pus from the tract. It promotes wound cleaning and wound healing.<sup>5</sup>Ghee is Pitta and Vata Shamaka , which is beneficial for dhatus i.e. Ras, Rakta ,Sshukra dhatu and Ojas.It has Sheeta Guna , Swara prasadan and Vrana. Valeriana wellichii is Tridosahara (balances all the 3 doshas especially Kaphavata shamaka).Thus these properties bestow pack with cleaning and healing properties.

**MODE OF ACTION OF PACK**

All the ingredients of pack has antibacterial properties.Fruit pulp of cassia fistula has antibacterial, anti-inflammatory, analgesic , antifungal properties due to its chemical components like arginine, leucine , glutemic acid , glucose , fructose present in it.<sup>6</sup> The chemical components of rhizomes of curcuma longa, like curcuminoids ,bisabolane, desmethoxycurcumin, bidesmethoxycurcumin, dihydroxycucumin, phytosteroids, having antibacterial and antifungal , anti inflammatory and antiprotozoal actions.<sup>7</sup>

Valeriana Welichii is Tridosahara especially kaphvata Shamaka . The methanolic extracts of Valeriana Welichii has presence of phytochemicals, alkaloids, flavnoids, tannin , saponins which involves in free radical scavenging activity and provide antibacterial and antifungal properties .<sup>8</sup> Ghee has antibacterial and antifungal properties . Ghrit has been advocated and used as dressing, for infected wound by Acharya Sushruta; (600 BC) the dressing markedly reduce the foul odour and discharge. Ghee is effective at repairing and restoring the skin. The slightly acidic PH level of honey helps to prevent the growth of bacteria. Honey's ability to kill bacteria lies in a protein called defensin -1.

In the scientific world Journal, researches provided data, confirming that natural honey was as effective as EUSOL antiseptic solution in reducing wound infection. Thus all the ingredients of cassia fistula pack possess antimicrobial (anti bacterial and antifungal) property which control infection within the fistula and promotes healing.

The present study was undertaken to know the efficacy of cassia fistula with improvement in clinical features. This therapy was also found better as far as the above mentioned criteria were concerned. During administration of cassia fistula, anesthesia was not required. Minimum time required for the administration was 2to 5 minutes. Hospital stay was not required for the process. Patient could do their daily routine work after the process and at last, patient did not faced pain during and after sitting.

**CONCLUSION**

Observation, analysis and results of the present study entitled – “Farfetched properties of cassia fistula pack to manage fistula in ano with special reference to low level fistula in ano” can be concluded as follows: There was a marked reduction in symptoms of pain, itching, discharge, length of tract and local tenderness. The treatment of fistula in ano by cassia fistula was framed on the principles of management of sinus (nadivrana) by means of wound packing. It was concluded that; administration of cassia fistula pack can be used for short length sinuses. In case of incomplete fistula, it is not rational to pierce the healthy tissue to make a complete tract; here cassia fistula pack could be an alternative. This process can be easily performed in outdoor patient department (OPD). Anesthesia was usually not required during the process. It is less time consuming procedure & does not require any special skill to perform the process.

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