



## A Comparative Study Of Effect Of Yashtimadhu Ghrita And Tikdadi Ghrita Locally In The Management Of Post Operative Fistulectomy Wound.

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### Abstract

Wounds related to Fistula in ano are difficult problem that surgeons have struggled with since the time of Hippocrates. Practically management of Fistulectomy wound is challenging and demands special attention. Wound healing is a natural process but factors like slough, infection and foreign body affect the normal process of healing. The developing resistance of microorganisms to antibiotics proportionally demands the need of new antibiotics. A simple wound turns highly septic while showing negligible effect to strongest antibiotics at times. Time tested safe compounds explained in Ayurvedic texts are the highlights of Ayurvedic medicine when it comes to wound healing. Due to moist anal region, continuous post-operative discharge from wound and daily bowel habit the wound get recurrently soiled and infected. Ultimately results into delayed and impaired wound healing. Thus post Fistulectomy wound management is very necessary for uncomplicated Post fistulectomy wound healing. After referring the Ayurvedic texts we observed that *Yashtimadhu Ghrita* and *Tiktaadi Ghrita* has *Vrana Ropana*, *Dahashamana*, *Vata Pitta shaman*, *Vedanashamana* properties which can help the *Fistula (Vrana)* to heal rapidly. *Tiktadi Ghrita* has property of *Krumighna*, *Puya nashak*, *Kandunashak*. *Yashtimadhu* is considered as best drug for *Vrana Ropan* (wound) and it has analgesic property also. In both products base is *Ghrita* which itself has *Samskara Anuvarti*, analgesic and healing properties.

The present study was conducted to evaluate and compare local effect of *Yashtimadhu Ghrita* and *Tiktaadi Ghrita* in management of post-operative fistulectomy. The symptoms which were assessed during study are Pain, Bleeding, Itching and Size of Ulcer.

The Results revealed that Statistically *Yashtimadhu Ghrita* and *Tiktaadi Ghrita* both are effective in conservative management of *Fistula in ano* but *Yashtimadhu ghrita* per rectal local application is more effective remedy for management of pain, bleeding, itching and for healing of ulcer when compared to *Tiktaadi Ghrita*.

### Introduction

*Vrana* means a condition which leads to discolouration of skin. *Vranayati eti Vrana*, *vranayati vaivarnya karoti*.

The wounds and their managements are fundamental in elective surgery. It is through wound that assess is obtained to deal with underlying pathology. Wounds related to *Fistula in ano* are a difficult problem that surgeons have struggled with since times of Hippocrates. Practically management of *Fistulectomy wound* is challenging and demands special attention. So further efforts are taken for post op *Fistulectomy wound management* using Herbal preparations.

### AIMS OF STUDY

**AIM:** To study the effect of *Yashtimadhu Ghrita* and *Tiktaadi Ghrita* locally in management of Post-operative *Fistulectomy wound*.

### OBJECTIVES:

To evaluate the efficacy of *Yashtimadhu Ghrita* in patients of Post-operative Fistulectomy wound.

To evaluate the efficacy of *Tiktaadi Ghrita* in patients of Post-operative Fistulectomy wound.

Comparative study to see the therapeutic effect between *Yashtimadhu Ghrita* and *Tiktaadi Ghrita*.

**Hypothesis :** After completing my present study it is concluded that *Yashtimadhu Ghrita* and *Tiktaadi Ghrita* both are effective in conservative management of Post-operative Fistulectomy wound but *Yashtimadhu Ghrita* per rectal local application is more effective and significant remedy for management of pain, bleeding, itching and for healing of ulcer when compared to *Tiktaadi Ghrita*.

**Type of Study:** Open comparative clinical study.

**Source of data:** 60 patients of acute Fistula in ano were selected randomly according to selection criteria from ShalyaTantra outpatient department of DR G D POL YMT College of Ayurveda, Kharghar, Navi Mumbai.

### **MATERIAL & METHODS:**

**Materials:** - 60 patients suffering from *Fistula in ano* in an age group of 18-60 yrs were selected randomly and were subjected to clinical trial. The selected patients were categorised in 2 groups of 30 in each.

Raw materials like *Yashtimadhu bharad* (*Glycyrrhiza glabra* Linn.) [5] And *Goghrita* [6] (Clarified Butter) was collected from local market. It's Identification & Authentication

Was done from Dept of Botony, University of Pune, and Pune.

Standardization was done from University of Pune, Pune. HPTLC of *Yashtimadhu ghrita* and *Tiktaadi Ghrita* was done at Anchrom Laboratories, Mulund (east), and Mumbai.

Ethical Clearance for the study was taken from Institutional Ethical Committee YMT AYU. PG/Shalya/132030008/2013-14

Drug Profile:

**Group A:** *Yastimadhu Ghrita* Administration:- Per Rectal local application ( once a day after defecation)

Duration – 10 days

**Group B:** *Tiktaadi Ghrita*

Administration:- Per Rectal local application ( once a day after defecation)

DIn both group adjuvant to *Yashtimadhu ghrita* and *Tiktaadi Ghrita*, orally *Gandharva Haritaki churna* 3gm at night with luke warm water will be given for *vatanuloman* (laxative) purpose for 1month.

### **METHODOLOGY**

Method of preparation:-

*Yashtimadhu ghrita* –

*Yashtimadhu Ghrita* was prepared by *snehapak vidhi* according to *sushrut Samhita chikitsa sthan* chp 31 *Snehopayogik chikitsa adhyay*. [7]

Proportions used were {1:4:16}

part = *Yashtimadhu Bharad*; 4 part = *Goghrita*; 16 parts = Water

*Yashtimadhu kwatha* is prepared with the moola of *yashtimadhu*. 1 part of *Yashtimadhu Bharad* and 16 parts of water taken in a vessel and boiled together till it reduced to *Chaturamsha* i.e. ¼ of the quantity.

This is subjected to filtration. To this then 4 parts of *Goghrita* was added to the *Yashtimadhu kwath* & cooked over *mandagni* till only *ghrita* part remains. Afterwards *Yashtimadhu ghrita* was collected and measured. Then *Yashtimadhu ghrita* 10gm was filled into aluminium tubes with nozzle from the back side of the tube (open side) after filling the *ghrita* into tubes crimping was done in crimping machine and tube was sealed and labelled as *Yashtimadhu Ghrita*.

*Tiktaadi Ghrita* –

*Tiktaadi Ghrita* was prepared according to Abhinav Bhaishajya Kalpana Vidnyan Chp. Vividh Kalpana. Pg no. 302

[8] Method of preparation:

*Goghrita* (Clarified Butter) was taken in shallow vessel, water added in vessel containing *ghrita* & kneading action was performed.

After performing kneading action for 2-3 mins the mixture was allowed to settle down & then above water was drained. This procedure was repeated for 100 times. After repeating the procedure for 100 times *Tiktaadi Ghrita* was obtained. Afterwards *Tiktaadi Ghrita* was collected and measured. Then *Tiktaadi ghrita* 10gm was filled into aluminium tubes with nozzle from the back side of the tube (open side) after filling the *ghrita* into tubes crimping was done in crimping machine and tube was sealed and labelled as *Tiktaadi Ghrita*.

Changes in the Pain, Bleeding, Itching and size of ulcer was observed on 0th day, 1<sup>st</sup> day, 3rd day, 5th day and 10th day.

## ASSESSMENT CRITERIA

### Inclusion criteria:-

Clinically diagnosed cases of *Fistula in ano* were taken for the study.

Patients irrespective of sex, religion, occupation & economic status.

Patients of both the sexes in between the age group of 18 to 60 years.

Exclusion criteria:-

Patients having *Fistula in ano* (Fistula-in ano) secondary to Ulcerative colitis, Syphilis, Crohn's disease, Tuberculosis and malignancy of rectum and anal canal.

Patients with infectious diseases like HIV & HbsAg.

Patient with Diabetes, Hypertension and skin disease.

Patients with chronic sentinel pile and associated with conditions like Hemorrhoids and *Fistula-in- ano*.

Grading Score –

The improvement in the patients was assessed mainly on the basis of relief in the cardinal sign & symptoms of the disease.

To assess the effect of therapy, all the signs and symptoms were given scoring depending upon their severity as below.

Table 1: Showing the gradations of parameters for assessment. Parameters Gradations

### 1. Goodagata Shoola (Pain) Grade

No Pain 0

Mild Pain 1

Moderate Pain 2

Severe Pain 3

Worst Pain 4

VAS Scale used for pain gradations- 0=0, 1-3 =1, 4-6=2, 7-9=3, 10=4

Assessment criteria-Relief-

Cured - 100 % relief (100% Improvement)

Markedly Improved - 51 – 75 % relief (Marked Improvement)

Improved - 26 – 50% relief (Moderate Improvement)

No Change - Below 25% relief (No Improvement)

## DIAGNOSTIC CRITERIA

Signs & Symptoms:

1. Boil present in peri anal region.

2 Discharge present from site of boil.

3 Painful defecation.

4. Itching in anal region

## LABORATORY INVESTIGATION

CBC with ESR

Blood Sugar

Urine test- Routine and microscopic

### OBSERVATION & RESULT-

Both study groups are statistically significant, as the 'p' value <0.001. But *Yashtimadhu ghritha* has more efficacy than *Tiktaadi Ghritha* for all cardinal symptoms.

For obtaining observations and results following tests were used- Wilcoxon signed rank test, Mann-Whitney U test,

Paired t test and Independent t-test.

### Table 2- Showing P values of both groups for all parameters

Parameters Gradations

#### Gudagata Rakta Srava (Bleeding) Grade

No Srava 0

Mild (<5 drops) 1

Moderate (5 – 10 drops) 2

Severe (>10 drops) 3

#### Kandu (Itching) Grade

No Kandu 0

Mild (less than 5 min) 1

Moderate (for 5 – 10mins) 2

Severe (more than 10 mins) 3

#### Size of Ulcer (Fistula) Grade

No Ulcer 0

0.1cm-0.5cm 1

0.6cm-1cm 2

1.1cm-2cm 3

Parameters 'p' value

*Yashtimadhu Ghritha Tiktaadi Ghritha Goodagata shoola (Pain)* 0.001 0.002

*Goodagata Raktasthav (Bleeding)* 0.001 0.003

*Kandu (Itching)* 0.001 0.002

*Size of Ulcer (Fistula)* 0.001 0.004

Observation table shows that, both study groups are statistically significant, as the 'p' value <0.001. But *Yashtimadhu ghritha*

has more efficacies for the symptom *Gudagata Shoola*, *Goodagata Raktasthav*, *Kandu*, and *Size of Ulcer*.

### Table 3: Showing Overall Result of *Yashtimadhu ghritha* and *Tiktaadi Ghritha* local (per rectal) application on 60 Patients.

**Result *Yashtimadhu ghritha Tiktaadi Ghritha*.** No. of Patients Percent No. of Patients Percent **Cured** 17 56.7% 13 43.3%

**Markedly Improved** 8 26.7% 8 26.7%

**Improved** 3 10.0% 4 13.3%

**No Change** 2 6.7% 5 16.7%

**Total** 30 100% 30 100%

### RESULTS –

In this present work on *Fistula in ano* 60 patients were selected according to the criteria and divided into two groups i.e. Group

A *Yashtimadhu Ghritha* per rectal local application and Group B *Tiktaadi Ghritha* per rectal local application.

This study was based on clinical features like *Goodagata Shoola*, *Goodagata Raktastrav*, *Kandu* and Size of Ulcer. Demographic analysis on Independent variables like Age, Gender, Marital status, Economic status, Education, Religion, Occupation, Diet, Nature of sleep, Addiction, Exercise, Prakruti and Weight were assessed but not considered in drawing conclusion.

Following results were observed –

**Gudagata shoola: In Group A Yashtimadhu ghrita**-Out of 30 patients- 22 patients (73.3%) were Cured, 6 patients(20%) were Markedly Improved and 2 patients (6.7%) got No Improvement.

**In Group B Tiktaadi Ghrita** - Out of 30 patients- 18 patients (60%) were cured, 8 patients (26.7%) were Markedly Improved and 4 patients (13.3%) got No Improvement.

**Gudagata raktashrava: In Group A- Yashtimadhu ghrita**- Out of 30 patients-24 patients (80%) were cured, 4 patients(13.3%) were Markedly Improved and 2 patients (6.7) got No Improvement.

**In Group B Tiktaadi Ghrita** – Group B out of 30 patients- 20 patients (66.7%) were cured, 9 (30%) patients were Markedly Improved and 1 patient (3.3%) was improved.

**Kandu: In Group A-Yashtimadhu ghrita**-Out of 30 patients - 21 patients (70%) were cured, 7 patients (23.3%) were Markedly Improved and 2 patients (6.7%) got No Improvement.

**In Group B- Tiktaadighrita**- out of 30 patients-13 patients (43.3%) were cured, 13 patients (43.3%) were Markedly Improved and 4 patients (13.3) were improved.

**Size of ulcer: In Group A- Yashtimadhu ghrita** - After treatment P Value is 0.001-86% patients were cured, 6.7% were Markedly Improved and 6.7% patients had No Improvement. **In Group B** – Tiktaadi Ghrita - After treatment P Value is 0.004.76% patients were cured, 13.3% were Markedly Improved and 10% patients had No Improvement.

Over all Effects of Therapies-Relief –

**In Group A- Yashtimadhu ghrita** - 56.7% patients were Cured, 26.7% patients were Markedly Improved, 10% patients were Improved, 6.7% patients had No Change.

**In Group B- Tiktaadi Ghrita** -43.3% patients were Cured, 26.7% patients were Markedly Improved, 13.3 % patients were Improved, 16.7% patients had No Change.

## DISCUSSION

In Fistula-in-ano there is preponderance of mainly two *Doshas* viz. *Vata* and *Pitta*.

Due to this *Doshic* predominance the two major symptoms of *Pidika*, pain and Discharge are present.

For the relief of these symptoms a drug which is *Vata shamak* and *Pitta Shamaka* is always suitable. In the treatment of all types of wounds and inflammations *Yashtimadhu* is considered the drug of choice.

The factors responsible for causation of *Fistula in ano* as found in various texts are *Vamana- Virechana- Vyapat*, *Bastikarma Vyapat*, *Atisara*, *Grahani*, *Arsha*, *Udavarta* etc.

*Sushruta* while describing the symptoms of the disease speaks of the features such as cutting or burning pain in perianal region extending upto pelvic and groin.

The present study was carried out to establish potent *Ayurvedic* treatment for *Fistula in ano*.

## PROBABLE MODE OF ACTION:

*Yashtimadhu* contains *Glycyrrhizine* and *asparagine* as active ingredients. *Glycyrrhizine* is a *saponin* widely used as an anti-inflammatory agent.

*Asparagine* is a type of amino acid and act as analgesic (natural painkiller) and anti - inflammatory. Pain is reduced due to *vedanashamak* effect of *Yashtimadhu ghrita* local application without using any antibiotic or painkiller. It doesn't only controls the pain but also act as *vatahara*, *pitta Shamak*, *ropaka*, *dahahamak*, *stambhak* in *Vrana*. *Ghrita* also reduces the *Rukshata* of *Vayu* and maintain the normal tone of muscles.

Smoothing effect is achieved due to *Ghrita*.

*Goghrita*, which itself is having *samskaraanuvarti*, analgesic and healing properties. *Samskaraanuvarti* property is potentiated

by *goghrita* which create good medium for absorption, transport and delivers of the *ayurvedic* formulation to the proper area of the body.

*Goghrita* also contains vit. A, D, E and K. Vit A and K are antioxidant and are helpful in preventing oxidation injury to the body. Vit. K keeps epithelial tissue of the body intact which is very useful of wound healing. Liolenic acid helps in granulation.

## CONCLUSION

In this present work on *Fistula in ano* 60 patients were selected according to the criteria and divided into two groups i.e. Group

A *Yashtimadhu Ghrita* per rectal local application and Group B *Tiktaadi Ghrita* per rectal local application.

The site of

*Fistula in ano* is *Guda*, which is similar to the site of *Fistula-in-ano*.

The age wise distributions of 60 patients showed that maximum number of patients i.e.

63.3% belonged to age

group of 18-28 years, followed by 30% patients to 29 - 39 years and 3.3% patients to 40 – 50 years. Lastly 3.3% patients belonged to age Group of 51 - 60 years.

According to Gender - Among 30 patients, in Group A 46.7 % were male, 53.3 % were female. In Group B 70 % were male, 30 % were female.

According to Occupation - Among 30 patients, in Group A 20% patients were Housewife, 6.7% patients were in business,

70% patients were Employee; 3.3% were Driver. In Group B 26.7% patients were Housewife, 6.7% patients were Mechanic and 3.3% patients were Plumber, 6.7% patients were in Business, 56.7% patients were Employee.

While observing the Nature of diet, in Group A - it was found that mixed diet patients were majority in number i.e. 90% and 10% were of vegetarian diet. In Group B 70% patients were of mixed diet and 30% patients were of vegetarian diet.

While observing Addiction - In Group A – 13.3% patients were addicted to Smoking, 10% patients were addicted

to Tea, 76.7% patients were not addicted to anything and In Group B - 3.3% patients were addicted to Coffee, 16.7% patients were addicted to Smoking, 13.3% patients were addicted to Tea, 66.7% patients were not addicted to anything.

According to Prakriti - In Group A 66.7% patients were of Vata-Pitta, 23.3% patients were of Pitta-Kapha, 10% patients were of Vata-Kapha and In Group B 63.3% patients were of

Vata-Pitta, 26.7% patients were of Pitta-Kapha, 10% patients were of Vata-Kapha.

According to Position – In Group A-26.7% patients were having Anterior Position of *Fistula*, 73.3% patients were having Posterior Position of *Fistula* and In Group B- 26.7% patients were having Anterior Position of *Fistula*, 73.3% Patients were having Posterior Position of *Fistula*.

While observing Result – In Group A-56.7% patients were cured, 26.7% patients were Markedly Improved, 10% patients were improved, 6.7% patients had No Change and In Group B- 43.3% patients were cured, 26.7% patients were Markedly Improved, 13.3 % patients were improved, 16.7% patients had No Change

From statistical analysis it is concluded that both groups are effective in conservative management of *Fistula in ano* when compared before and after treatment. This is observed that the most evident symptoms present i.e. pain and bleeding, burning sensation, itching can be relieved much earlier and *Fistula* can heal much rapidly by the application of *Yashtimadhu Ghrita* rather than *Tiktaadi Ghrita*.

## FUTURE SCOPE AND LIMITATIONS:

Further study can be done on Acute as well as Chronic *Fistula in ano* irrespective of size of ulcer.

Multicentre trials can be carried out with large sample size.

In future it can be used as an alternative option to Modern topical ointments.

## REFERENCES:

1. Baileys & Loves Short Practice Of Surgery 24th edition Chapter 72 pageno 1253,1254.
2. Concise Text book Of Surgery 4<sup>th</sup> Edition S.Das Chapter no 54 Rectum & Anal canal Treatment of Fistula in Ano- page no 1084.
3. Concise Text book Of Surgery 4<sup>th</sup> Edition S.Das Chapter no 54 Rectum & Anal canal Treatment of Fistula in Ano- page no 1085
4. Concise Text book Of Surgery 4<sup>th</sup> Edition S.Das Chapter no 54 Rectum & Anal canal- Treatment of Fistula inAno & complications- page no 1086.
5. Dravyaguna Vijnyan [ayurvedic medicinal plants] part 1 & 2 by Dr.A.P.Deshpande- Subhash Ranade, Anmol Prakashan, Pune, pg no. 349-352.
6. Kaiyadeva Nighantu, edited and translated by Prof P V Sharma, Choukhamba oriental, 1st edition,pp696, pg 368.
7. Sushrut Samhita Chikitsastan-Dr.Anantramram Sharma Vol 2- Chikitsastan, chp 31 Snehopayogik chikitsa adhyay. Shlok no 8- Page no 408
8. Abhinav Bhaishajya Kalpana Vidnyan,chapter Vividh kalpana, pg.no.302
9. Sushrut Samhita Sutrasthan-Dr.Anantramram Sharma Vol 1- Chp 5, Shlok no 42- Page no 44
10. Sushrut Samhita Chikitsastan-Dr.Anantramram Sharma Vol 2- Chikitsastan, Vaman virechan vyapad Adhyay Shlok no 16- Page no 439
11. Oprative surgery, 5th Edition, S.Das 2007 Calcutta,chapter no 32,page no 408.
12. Kashyapa samhita- text with English translation and commentary by p v tewari chapter 13. no -2 sloka- 1 page no- 163.
13. Sushruta samhita chikitsasthan Dr.Anantramram Sharma Vol 2- chp.36 shloka no. 36-37 pg no. 454
14. Kashyap samhita- text with English translation and commentary by p v tewari kilasthan chp.14 shloka no
15. Sindhav vijayasinha. V – Role of yastimadhvadi Ghrita in the management of Fistula in anow.s.r Fistula-in-ano.Jamnagar: Gujarat Ayurvedic University;2001.
16. Dr.Shindhe Anatakumar. Comparative study of Yastimadhu tail in the management of Fistula in ano, S.D.M College of Ayurveda Kuthpady Udapi-2008