

A STUDY TO DETERMINE THE EFFICACY OF TAGARADI TAILA ON MOOLADHARA CHEDANA (SADYO VRANA) WITH SPECIAL REFERENCE TO EPISIOTOMY

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ABSTRACT

Background:*Prasutitantra*, the sub-branch of Ayurveda dealing with the medical, para-surgical and surgical approach towards diseases of women, pregnancy and delivery related issues. Episiotomy is a routinely performed surgical procedure in the conduct of vaginal delivery. Episiotomy wound can be compared to *chinna vrana*. (a kind of *sadhyo vrana*) and so its treatment can be inferred as that of *sadhyo vrana*. **Objectives:** To study about *Mooladhara Chedhana* and Episiotomy as per Ayurvedic and modern literature. To study the efficacy of *Tagaradi Taila* on *Mooladhara Chedhana*.**Methodology:**It was a single blind clinical study of 40 patients; divided into 2 equal groups.*Tagaradi Taila* application given twice daily after *prakshalana* of episiotomy wound for 8 days in Group A while Betadine application twice a day after *prakshalana* of episiotomy wound for 8 days in Group B.**Results:**In symptom Redness, Edema, Ecchymosis, Discharge, Pain and Approximation the p value obtained was < 0.001 in both groups which was statistically highly significant. **Conclusion:***Tagaradi Taila* can be used for episiotomy wounds safely in clinical practice as that of betadine is being used routinely.

Keywords:*Sadhyo Vrana,Prakshalana,Chedhana,Episiotomy,Tagaradi Taila,*

INTRODUCTION:*Prasutitantra*, the sub-branch of Ayurveda dealing with the medical, para-surgical and surgical approach towards diseases of women, pregnancy and delivery related issues. Episiotomy is a surgically planned incision on the perineum and posterior vaginal wall during second stage of labour with the aim of increasing soft tissue outlet dimensions to help with easier childbirth and prevent perineal lacerations which may extend to anus, anal sphincter or even upto rectum.¹ Episiotomy wound can be compared to *chinna vrana*.^{2,3} (a kind of *sadhyo vrana*) and so its treatment can be inferred as that of *sadhyo vrana*.*Taila* is one among the sixty treatment modalities which have been incorporated in our classics for better wound healing with minimum scar

formation and control pain.⁴ *Tagaradi Taila* has been mentioned in our classics as *Vrana shodhaka* and *Ropaka*. It is also said to treat *Vrana* caused by *Sadhyo Shastra Prahaara*.⁵

AIM AND OBJECTIVES:

1. To study about *Mooladhara Chedhana* and Episiotomy as per Ayurvedic and modern literature.
2. To study the efficacy of *Tagaradi Taila* on *Mooladhara Chedhana*.

MATERIALS

AND

METHODOLOGY:

This study was conducted in between December 2014 to January 2017. Patients with sutured episiotomy wound following normal vaginal delivery from IPD of Dept. of Prasooti Tantra and Stree Roga, Shri

J.G.C.H'S Ayurvedic Hospital, Ghataprabha were selected.

Drug source:

Raw drugs procured from herbal garden and certified from pharmacy, *Tagaradi Taila* was prepared in *Rasshashtra* and *Bhaishajyakalpana* dept. of our college, as per *taila paka vidhi*.

Study design: It was a single blind clinical study of 40 patients; patients fulfilling the inclusion criteria were selected, divided into 2 equal groups.

Group A: *Tagaradi Taila* application twice daily after *prakshalana* of episiotomy wound for 8 days.

Group B: Betadine application twice a day after *prakshalana* of episiotomy wound for 8 days. Follow up was done on 16th day for both groups.

Selection Criteria

Inclusion criteria :

1. All primi and multi gravida who will undergo vaginal delivery with episiotomy and having age group between 18 to 35 years.
2. Uncomplicated pregnancy where mother and baby are in good condition.

Exclusion criteria :

1. History of impaired wound healing.
2. Patients having blood coagulopathy, hematoma, abscess are excluded.
3. Patient with skin diseases.
4. Severe anaemia in which Hb% is below 6gm%.
5. Patient having systemic disorders in pregnancy like Tuberculosis, Hypertension, Diabetes mellitus, Immuno-suppressed patients will be excluded.

Subjective Criteria

VAS (Visual Analogue Scale)

1 The Visual Analogue Scale (VAS) is a subjective measure of pain. It consists of a

10cm line with two end-points representing “no pain” and “unbearable pain.” Patients are asked to rate their pain by placing a mark on the line corresponding to their current level of pain. According to this method, scores were given as follows–

No pain	–	0
Mild pain	–	1 to 3
Moderate pain	–	4 to 7
Intolerable pain	–	8 to 10

Objective criteria

The REEDA Scale² (Redness, Edema, Ecchymosis, Discharge, Approximation)

is a scale for grading the severity of perineal trauma associated with episiotomy or laceration associated with delivery.

Procedure of utility of REEDA Scale –

Patient taken in Sims position. A 4cm wide piece of papertape is placed so that, its midline runs along with the length of the wound. Recorded the measurements according to the run of the incision.

Gradation Index of REEDA Scale.

SI. PARAMETER FINDING Grade

01. Redness

None	0
Within 0.25cm of the incision bilaterally	1
Within 0.50cm of the incision bilaterally	2
Beyond 0.50cm of the incision bilaterally	3

02. Edema

None	0
Perineal, <1 cm from the incision	1
Perineal and or vulvar, 1-2 cm from the incision	2
Perineal and / or vulvar, > 2cm from the incision	3

03. Ecchymosis

None	0
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Within 0.25cm bilaterally or 0.5cm unilaterally **1**

Within 1.00cm bilaterally or 0.5cm to 2.00cm unilaterally **2**

> 1cm bilaterally or > 2 cm unilaterally **3**

04. Discharge

None **0**

Serum **1**

Serosanguinous **2**

Bloody, purulent **3**

05. Approximation

Closed **0**

Skin separation <= 3mm **1**

Skin and subcutaneous fat separated **2**

Skin, subcutaneous fat and fascial layer separation **3**

Results:

Age: Among 40 patients 72.5% were between 18-23 years, 25% were between

24-29years and 2.5% between 30-35 years.

Religion: Among 39 patients 97.5% were Hindus and 2.5 % were Muslim.

Occupation: Among 40 patients 77.5% were house wives ,22.5% were working.

Socio-economical Status :Among 40 patients 17.5% were lower class, 30.0% were lower middle class, 30.0% were middle class,22.5% were upper middle class.

Prakriti:Among 40 patients 40% were of vata- pitta prakuti,40% were of vata-kapha and 20% were pitta kapha prakruti.

Clinical study: The Wilcoxon signed-rank test is a non-parametric test for the case of two related samples or repeated measurements on a single sample. For the analysis of subjective criteria in experimental group the Wilcoxon Signed Rank Test was applied for Symptom score and findings are as follows.

Table No.1 Effect of Therapy on Symptoms in Experimental Group Statistically:

Symptoms	Mean score		Mean decrease	%	SD	SE	"t"	P
	BT	AT						
Redness	3	0.25	2.75	91.6	1.944	0.6040	3.16	<0.001
Edema	3	0.30	2.70	90	1.909	0.6090	3.16	<0.001
Ecchymosis	3	0.30	2.70	90	1.909	0.6090	3.16	<0.001
Discharge	2	0.15	1.85	92	1.909	0.4138	3.16	<0.001
Approximation	3	0.1	2.90	96.6	2.050	0.6487	3.16	<0.001
Pain	3	0.15	2.85	95%	2.015	0.6152	3.16	<0.001

In symptom Redness, Edema, Ecchymosis, Discharge, Pain and Approximation the p value obtained was < 0.001 which was statistically highly significant.

Table No.2 Effect of Therapy on Symptoms in Control Group Statistically:

Symptoms	Mean score		Mean decrease	%	SD	SE	"t"	P
	BT	AT						
Redness	3	1	2.75	66.66	1.414	0.4474	3.16	<0.001
Edema	3	1.1	2.70	63.3	1.909	0.6090	3.16	<0.001
Discharge	2	0.2	1.85	90	1.272	0.4026	3.16	<0.001
Approximation	3	0.1	2.90	96.6	2.050	0.6487	3.16	<0.001
Ecchymosis	3	1.05	1.95	65	1.378	0.4026	3.16	<0.001
Pain	3	0.7	2.3	76.6	1.626	0.5145	3.16	<0.001

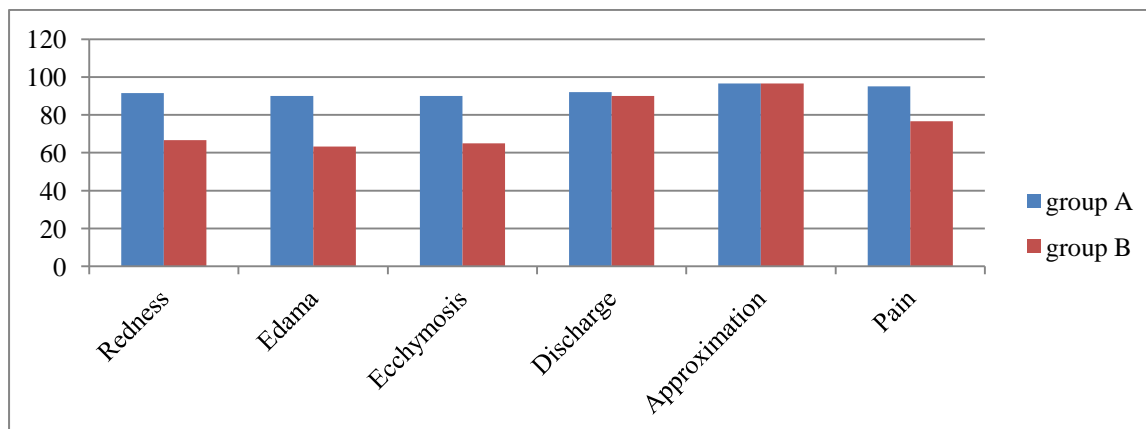
In symptom Redness, Edema, Ecchymosis, Discharge, Pain and Approximation the p value obtained was < 0.001 which was statistically highly significant.

OVERALL RESULT:

Table No.3 The Percentage of improvement in individual parameter in REEDA and VAS scale after 8 days of the treatment.

SL.	Parameters	Percentage relief	
		Group A	Group B
01.	Redness	91.6	66.66
02.	Edema	90	63.3
03.	Ecchymosis	90	65
04.	Discharge	92	90
05.	Approximation	96.6	96.6
06.	Pain	95	76.66

Graph.1 Showing comparative results of Group A-Tagaradi Taila and Group B- Betadine Ointment.



When overall results were glanced *Tagaradi Taila* showed good results compared to Betadine ointment. On redness *Tagaradi Taila* showed 91.6% effect and Betadine Ointment showed 66.66% effect. On redness trial drug showed 91.6% that of Betadine Ointment i.e about 66.66% . On edema *Tagaradi Taila* showed 90% of good results compared to Betadine which was 63.3% On ecchymosis *Tagaradi Taila* showed 90 % of good results compared to Betadine ointment which is 65% . On discharge *Tagaradi Taila* showed 92% results as compared to Betadine Ointment which was 90%. In approximation *Tagaradi Taila* and Betadine ointment showed marked Effect i.e 50%and 60%

respectively. In pain *Tagaradi Taila* showed 95% results as compared to Betadine Ointment which was 76.66% .

DISCUSSION : Episiotomy is a routinely performed surgical procedure in the conduct of vaginal delivery. Various studies show that, the efficacy of midline and medio-lateral conduct episiotomy shows no significant difference in outcome. But there is a risk factor in midline episiotomy is perineal tears, incontinence of stool, discomfort in perineal area and sexual intercourse. Though, there are several studies conducted on the efficiency of episiotomy on maternal health, fetus during birth, neonatal life, and even during future life. But, there is not enough data which shows

the actual efficiency of episiotomy. Hence, the actual conduct of episiotomy on regular basis and research basis stands on controversial issue. Episiotomy is a wound on perineum and has every chance of getting infected due to stool, urine and lochia. Hence, its care should be taken in a proper way. The complicated nature of anatomy of perineum should be taken under consideration while dealing with its management.

Probable Mode of Action of Taila

Mode of action of Taila : Taila is one of the most important Sneha among the 4 important Sneha i.e. Ghee, Majja, Vasa, Taila. Tila Taila is *sthavar sneha* as it is derived from the plant origin. Taila is best among the *vatashamaka sneha*; as it is *ushna* and *sukshma srotogami*, it is also *kaphanashak*, *Balya* i.e. it increases the *uttarottar dhatu*. It is *twachya* i.e. beneficial for *twacha*. It makes the body stronger and cleanses the *yonimarg*. It is *vyavayi*, *vikasi*, *sookshma srotogami*.

Guna - Guru & Snigdha

Rasa - Madhura, Kashaya, Tikta, Katu

Veerya - Ushna

Vipaka - Madhura

Due to *ushna veerya* it is *vatashamak*, *Madhur vipaki*, *Guru*, *Snigdha Guna* leads to pacification of *vata*. *Kashaya rasa* is mainly acting as *ropana* and *sthambhan*. *Tikta rasa* act as *shodhana*. Hence it is *vedanasthapana*, *Sandhaniya*, *Vranashodhak*, *Vranaropana*, *Shoolaghna*, *Puyaghna* and *Balya*.

So, *Tila taila* formulation is *ushna*, *sookshma*, *vyavayi*, *snigdha*, *srotogami*, *vata-kapha shamaka*, *vedanasthapan*, *vranashodhna*, *ropana*, *shoolghna*, *puyaghna* and helps in healing of the *sadyo vrana*.

Probable Mode of Action of Tagaradi Taila

Tagaradi Taila as per the given reference, *Tagaradi Taila* is been indicated in *vrana* due to its *vranaropak* property. The *lakshana of vrana* like *shool* (pain), *shoth* (edema), *strav* (discharge), *vranashtha* (edges), are markedly reduced by the virtue of *Tagaradi Taila*.

CONTENTS:

Tagar-, helps to reduce pain at the site of *vrana* by its *prabhava* i.e. *vedanasthapana*.

Agaru-due to its *ushna virya* helps relieving pain, as its predominant symptom of *vata*.

Ela -due to its *prabhava* i.e. *dahaprashamana*, helps to reduced burning sensation at the *vrana* site and has anti-inflammatory and analgesic action.

Jati –it is *twachya* and *vranaropka* helps in formation of granulation.

Chandan-helps in wound healing by its sheet *virya* and *dahaprashmana prabhava*, also possess antibacterial property.

Padmaka- also helps in reducing pain by *vedanasthapan prabhava* and relieves burning sensation by *sheet virya*.

Tutta and **Manasheela** are mineral ingredients in *Taila*. They have *kandughna* and *krimighna* action and thus reducing oedema and infection at local *vrana* site, also due to *lekhaniya guna* they help to remove cell debris at local *vrana* site hence improves granulation i.e. *vranaropana*.

Daruharidra -helps granulation at *vrana* site and reduces oedema by *ushnavirya*, *katu –tikta* rasa and acts as local anaesthetic.

Guduchi -Due to its *tikta rasa*, *madhur vipak* helps in relieving pain, increases granulation and reduces *strava* also it has

bactericidal and anti-inflammatory property.

Probable Mode of Action of Betadine

Povidone – Iodine is an antiseptic solution that is usually used all around the world for episiotomy wound care. It is an antiseptic solution used to prevent the secondary infection. Moreover, it doesn't have any role in wound healing. It is fast bactericidal and even on exposure for longer duration it works on ova and cysts.

CONCLUSION: In this clinical, Group A patients with *Tagaradi Taila* and Group B patients were treated with Betadine ointment. Betadine is control drug and conventional method of wound management in episiotomy wounds. It has no role in pain management and wound healing rather than the asepsis measure. *Tagaradi Taila* can be used for episiotomy wounds safely in clinical practice as that of betadine is being used routinely. No side effects were noted because of these drugs.

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Source of support: Nil Conflict of interest: None Declared

Cite this Article as :[Salunke Sujata K et al : A Study to Determine the Efficacy of Tagaradi Taila on Mooladhara Chedana (Sadyo Vrana)with Special Reference to Episiotomy] www.ijaar.in : IJAAR VOLUME IV ISSUE IV SEP -OCT 2019 Page No: 326-331