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"A COMPARATIVE STUDY TO EVALUATE THE EFFICACY OF VAJRAKA TAILA AND JATYADI TAILA ON EPISIOTOMY WOUND"

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ABSTRACT
Ensuring healthy and safe motherhood with utmost care rendered to every woman is the outright responsibility of an Obstetrician. Episiotomy is performed almost as routine in cases of vaginal delivery to cut short the 2nd stage of labour and to prevent irregular tears. Yoni prasarana explained in our classics can be achieved through surgical procedures like Utkartana Karma. The wound thus formed after an Episiotomy is associated with immense pain, discomfort and seeks appropriate medical care and attention. If ignored, it may lead to various Puerperal infections which are costly in terms of delayed mother infant interaction, lactation difficulties and prolonged hospital stay. Hence the present study was conducted to ensure faster and healthy healing of the Episiotomy wound by using Vajraka Taila as trial drug. The efficacy of the drug was compared with Jatyadi Taila which is a very well known formulation advised for vrana. Objectives: 1. To evaluate the effect of Vajraka Taila on Episiotomy wound. 2. To evaluate the effect of Jatyadi Taila on Episiotomy wound. 3. To compare the efficacy of both the groups. Design and Setting: The present study was a single blind comparative clinical study where in 40 patients who underwent normal vaginal delivery with Episiotomy, after suturing the wound were taken for the study from IPD of Prasooti Tantra Evam Stree Roga Department of SKAMCH and RC, Bangalore. The Patients were randomly assigned into two groups consisting of 20 patients in each group. Patients in Group A were treated with Vajraka Taila and Group B treated with Jatyadi Taila, for 7 consecutive days. Assessment of the Episiotomy wound was done with REEDA scale (Redness, Edema, Ecchymosis, Discharge, and Approximation) along with other subjective and objective parameters. Duration of study: 21 days Follow up: 14th and 21st day. Results: Results were calculated and statistically analyzed using paired and unpaired t-test. The test showed highly significant results within the groups, but comparison between two groups did not show significant difference. Group A- treated with Vajraka Taila showed better results when assessed using REEDA Scale (Redness, Edema, Ecchymosis, Discharge, Approximation) with t value 20.68 compared to Group B treated with Jatyadi Taila with t value 14.03. On symptoms like Pain, Tenderness, Inflammation and Odour, both Taila showed same results. Conclusion: Vajraka Taila having drugs with Vrana Shodhana and Vrana Ropana Properties aids in early and healthy wound healing without undue complications and with very good patient compliance.

KEYWORDS: Episiotomy, Jatyadi Taila, REEDA scale, Utkartana Karma, VajrakaTaila.

INTRODUCTION
Pregnancy and puerperium are the two events that prove to be boon and bane in any woman's life. The most beautiful facet of life is reproduction and thereby the mother attains unique capacities and true nobility through childbirth. Our Acharyas have elaborated many measures to ensure Sukhaprasava. One such measure is Yoni Prasarana mentioned in cases of perineal insufficiency during prasava by Acharya Vagbhata.

Yoni prasarana can be achieved either by dilating with the fingers or by making an incision on the perineum. In Mudhagarbha chikitsa, Utkartana karma is mentioned as one of the shalya chikitsa.[1] This can be taken as the Episiotomy, a surgically planned incision on the perineum and posterior vaginal wall, done during second stage of labour.[2] In India the overall rate of episiotomy was 40.6%[3] in 2003. The episiotomy rate in Karnataka is very high. It is about 88% in women who are undergoing difficult labour. In Bangalore, rate of episiotomy for vaginal birth ranges from 31% to 75 %.[4] A current medical literature documented that 60% of women with episiotomy reported severe postpartum pain, 25% experienced infection at the site and 20% had problems during intercourse for up to 3 months after child birth.[5] Hence it is evident that special care must be taken to prevent infection, hasten healing and reduce scar. Although relatively small in size, an episiotomy

wound can cause considerable discomfort because the perineum is an extremely tender area owing to rich nerve supply. The muscles of the perineum are involved in many activities like (sitting, walking, squatting, bending, urinating, and defecating), which are affected by the complications of the Episiotomy wound.

The Episiotomy wound can pose a problem in healing, being present nearer to all the flushing outlets of the body, it threatens for infections and further complications like wound dehiscence and healing by secondary intension causes fibrosis. Healing by fibrosis causes rigidity of perineum predisposing to dyspareunia and subsequent difficult deliveries in woman. Puerperal infections are costly in terms of delayed mother infant interaction, lactation difficulties, prolonged hospital stay or readmission to hospital and increased expenses.[6]

Episiotomy wound care starts immediately after suturing the wound in order to reduce pain and inflammation. This surgical wound can be considered on the lines of Sadyo vrana and treated accordingly. Sushruta has mentioned the use of drugs possessing Kashaya, Madhura rasa and Snigdha properties for the immediate management in Sadhyovrana[7]. Hence in the present study, a sincere attempt has been made to hasten the rate of Episiotomy wound healing, by the application of Vajraka taila in Group A and Jatyadi Taila in Group B.

Aims and Objectives

1. To evaluate the effect of Vajraka Taila on Episiotomy wound.
2. To evaluate the effect of Jatyadi Taila on Episiotomy wound.
3. To compare the efficacy of both the groups.

MATERIAL AND METHODS

• This is a single blind comparative clinical study, with pre test and post test design, conducted on 40 patients who underwent normal vaginal delivery with Episiotomy, after suturing the wound.
• A case proforma was specially designed with all points of history taking, physical signs and lab investigations.
• The parameters of signs and symptoms were scored as mentioned in the proforma.
• The Following statistical methods were employed for the data collected

a) Descriptive statistics
b) Student 't' Test –Paired and Unpaired.

INCLUSION CRITERIA

- All Primi and Multi Gravida who underwent normal vaginal delivery with Episiotomy
- Forceps delivery, ventose delivery

EXCLUSION CRITERIA

- 3rd or 4th degree perineal tear.
- Perineal lacerations.
- Delivery complications like Post Partum Haemorrhage and cervical tear.
- Any systemic diseases that interfere normal wound healing.

Design of the study

40 patients with sutured Episiotomy wound following normal vaginal delivery, were randomly assigned into the following two groups each comprising of 20 patients.
Group A: Application of Vajraka Taila twice daily for 7 days under all aseptic precautionary measures.
Time of application- applied once in the morning and once in the evening.
Group B: Application of Jatyadi Taila twice daily for 7 days under all aseptic precautionary measures.
Time of application- applied once in the morning and once in the evening.

INTERVENTION
Method of drug application
Group A

Vajraka Taila application – sufficient quantity of Taila was taken on sterile cotton gauze and applied over the wound area.

Group B

Jatyadi Taila application – sufficient quantity of Taila was taken on sterile cotton gauze and applied over the wound area.
The wound healing was assessed on Post test i.e. 7th day

Follow- Up

Was done on the 14th and the 21st day.
Total duration of study
21days.

Assessment criteria

Assessment was done during the treatment and after the treatment considering the following subjective and objective parameters**:**

- Pain
- Tenderness
- Inflammation
- Odour
- REEDA SCALE(Redness, Edema, Ecchymosis, Discharge and Approximation)

INVESTIGATIONS

Blood-Hb%, RBS, CT, BT, VDRL, HBsAG, HIV, Blood group with Rh factor.

OBSERVATIONS

OBSERVATIONS RELATED TO THE EFFECT OF TREATMENT

ASSESSEMENT CRITERIA			Day 1		Day 7		Day 14		Day 21	
			N0.	%	N0.	%	N0.	%	N0.	%
1.Pain	Group A	Present	20	100	20	100	0	0	0	0
		Absent	0	0	0	0	20	100	20	100
	Group B	Present	20	100	20	100	0	0	0	0
		Absent	0	0	0	0	20	100	20	100
2.Tenderness	Group A	Present	20	100	0	0	0	0	0	0
		Absent	0	0	20	100	20	100	20	100
	Group B	Present	20	100	0	0	0	0		0
		Absent	0	0	20	100	20	100	20	100
3.Inflammation	Group A	Present	20	100	0	0	0			0
		Absent	0	0	20	100	20	100	20	100
	Group B	Present	20	100	0	0	0	0	0	0
		Absent	0	0	20	100	20	100	20	100
4.Odour	Group A	Present	20	100	0	0	0	0		0
		Absent	0	0	20	100	20	100	20	100
	Group B	Present	20	100	0	0	0	0	0	0
		Absent	0	0	20	100	20	100	20	100

Effect of treatment W.R.T. REEDA scale

Table: EFFECT OF TREATMENT W.R.T REEDA SCALE IN BETWEEN THE GROUPS

PARAMETER	Unpaired t- Test								
	Treatment	Group	Mean	SD	SE	PSE	t value	p value	Remarks
REEDA Scores	DAY 1(BT)	Group A	4.65	±1.14	0.254	0.39537	0.253	>0.05	NS
		Group B	4.55	±1.36	0.303				
	DAY 7(AT)	Group A	0.05	±0.22	0.050	0.5237	0.065	>0.05	NS
		Group B	0.20	±0.69	0.156				
	DAY14(FU1)	Group A	0.00	±0.00	0.00	0.3162	1.000	>0.05	NS
		Group B	0.10	±0.447	0.100				
	DAY 21(FU 2)	Group A	0.00	±0.00	0.00	0.3162	1.000	>0.05	NS
		Group B	0.10	±0.447	0.100				

Table: EFFECT OF TREATMENT W.R.T REEDA SCALE ON GROUP A

PARAMETER	Paired t –Test						
	Treatment	Mean	SD	SE	t value	p value	Remarks
REEDA SCORE	BT-AT	4.65 0.05	0.99	0.22	20.68	<0.001	VH.S
	BT-FU 1	4.65 0.00	1.14	0.25	18.29	<0.001	VH.S
	BT FU 2	4.65 0.00	1.14	0.25	18.29	<0.001	VH.S

Table: EFFECT OF TREATMENT W.R.T. REEDA SCORE ON GROUP B

PARAMETER	Paired t –Test						
	Treatment	Mean	SD	SE	t value	p value	Remarks
	BT-AT	4.55 0.20	±1.39	0.31	14.03	<0.001	VH.S
	BT-FU 1	4.55 0.10	±1.32	0.29	15.11	<0.001	VH.S
	BT FU 2	4.55 0.10	±1.32	0.29	15.11	<0.001	VH.S

MODE OF ACTION OF VAJRAKA TAILA.[8]

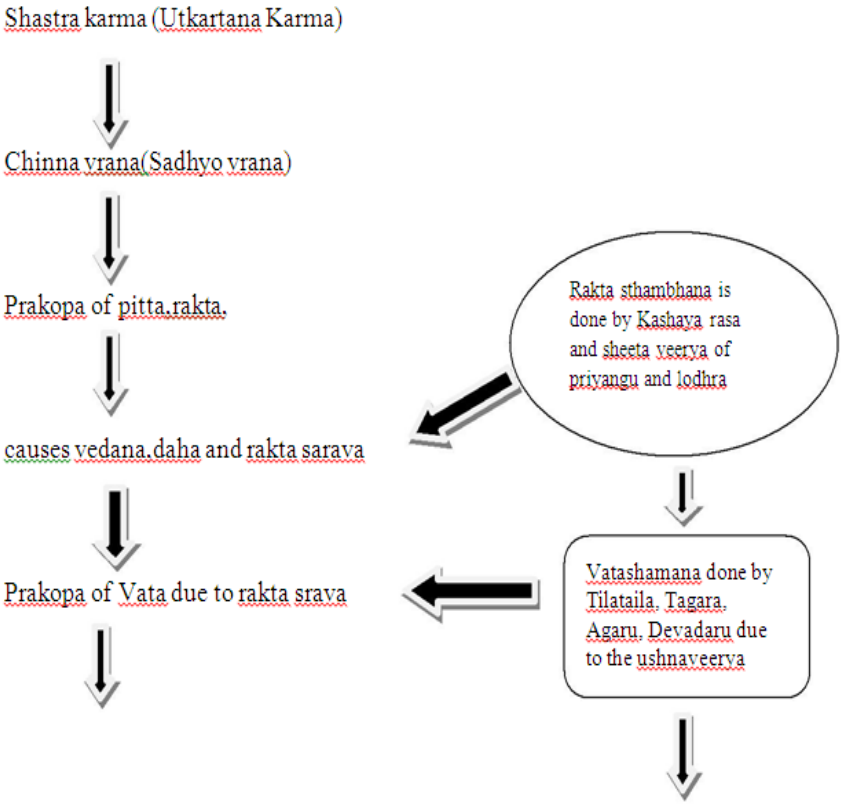
Gomutra, Saptahwa, Arka, Chitraka, Nimba, Jaanthughana, Maricha and Pippali have Krimighana properties. Chitraka, Arka, sirisha, Karanja, Haritaki, Vibhitaki, Sunthi and Daruharidra are Shoolahara and shothahara. Haridra has ruksha guna, tikta, katu rasa,

ushna virya, karma being varnya, raktastambhaka, vranashodana, ,lekhaniya,vishghna and Kapha-vatahara. Daruharidra has Laghu ruksha guna, Tikta ,kashaya rasa, ushna virya, katu vipaka, Shothahara, vranashodhaka, vranaropaka, raktastambaka and varnya. All drugs possess the action of Vrana shodhana, ropana, Twakdoshahara and Sthambhana properties. Vrana ropana property of these drugs helps in the quick healing of the episiotomy wound.

MODE OF ACTION OF JATYADI TAILA

Most of the ingredients of Jatyadi taila are having tikta, kashaya rasa and laghu,ruksha gunas. Kashaya rasa:it does shoshana there by it might help in vrana ropana. Tikta rasa: it does twak –mamsa shtirakarana & lekhana, it might help in increasing tensile strength of theWound.

Schematic representation of Probable Mode of action



Katu Rasa: it is vrana shodhana & avasadana properties. Tutha: It is one among the ingredients of Jatyadi taila,having lekhana karma.Even in current surgical practice copper sulphate is used in the removal of slough. As Jatyadi taila includes the drugs which possess both shodhana & ropana qualities it helps in proper healing of vrana.

TILA TAILA

It is used in the preparation of both tailas. It has ushna, teekshna, madhura, vataghna, vyavayi, vikasi & sukshma gunas. When it is treated with drugs it takes the properties of those drugs. So it might help in reaching the minute channels by means of its sukshma, vyavayi,vikasi gunas and helps in reducing vedana.

DISCUSSION

In the present study both the drugs showed statistically highly Significant results within the group on REEDA scale with P value <0.001. But comparison between two groups did not show any significant difference. While comparing t value, Vajraka Taila proved to be more effective with t= 20.68 and that of Jatyadi Taila with t = 14.03 after treatment.

Drugs like Haridra, Daruharidra in Vajraka Taila and Jati,Patola, Naktamala, Kushta,Katukarohini, Manjishta, Abhaya and Tuttha in Jatyadi Taila and Tila Taila ,the base drug in both the Tailas have ushna veerya and have Kashaya, Katu as pradhana rasa. TilaTaila is Yonivishodhaka and most of the drugs in both the Tailas are Vrana Shodhaka and Ropaka, hence in both the groups the wounds have healed well on time and have a healthy scar. This helps in reducing the amount of discharge.

In Varaka Taila the number of drugs having Ushna veerya, Kashaya Rasa are more, hence it is proved to be better.

Daruharidra is specifically mentioned in Sutika Vrana Ropana. This must have led to better results with Vajraka Taila. Haridra have Yoni dosha hara property . Drugs like Nimba, Haridra, Daruharidra have krimihara property which helps is combating the infection and thus

maintain the area aseptic. Thus, Vajraka taila showed better results.

CONCLUSION

In this study, 40 patients who underwent normal vaginal delivery with sutured episiotomy wound were taken for the study. Based on the clinical observations of the Episiotomy wound healing and the effect of treatment on it, following conclusions were drawn:

Vajraka Taila and Jatyadi Taila had same effect on Inflammation, Pain, Tenderness and Odour. But on REEDA scale vajraka taila proved better than jatyadi taila.

Vajraka Taila which is explained in classics as a potent drug for wound healing has been proved to be an excellent drug in the present study.

It can be concluded that Jatyadi Taila and Vajraka Taila are equally effective in hastening the healing of Episiotomy wound without any ADR (Adverse Drug Reaction) and no short term or long term complications.

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