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AYURVEDIC MANAGEMENT OF EPISIOTOMY WOUND: A CASE REPORT

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Abstract:

Background: A surgical incision is easier to repair than a spontaneous irregular or extensive tear. An episiotomy helps to shorten the 2nd stage of labour. It can also decrease trauma to the vaginal tissues. The episiotomy wound is sutured immediately after 3rd stage of labour under local anesthesia. According to the modern science get advanced with new antibiotic local application and oral antibiotics are advised for wound, but their resistance increases day by day. Considering all the problems during *Sutikavastha* (postnatal period) with *Yonivrana* (episiotomy wound), it is necessary to give proper treatment and assurance to the patient. Episiotomy wound can be compared with *Saddhyovrana* (fresh wound). So it can be treated as *Sadhyovrana Chikitsa* (fresh wound treatment). In this present case study, Patient with sutured surgical episiotomy wound with chromic catgut no. “0” and “1”, following delivery was selected. Drugs *Saptavinshatiki Guggulu* and *Nimbadi Lepa* (*Nimbadi* ointment) were administered oral and local respectively in a 29 year old second gravida patient for 2 weeks and follow-up for 1 week. Assessment was done on the basis of REEDA scale and Numeric Rating Scale. **Result:** 100% result was found in pain, edema, discharge, redness and tenderness in episiotomy wound.

Key Words: *Sutikavastha*, *Saddhyovrana*, Episiotomy wound, *Vrinashodhana*, *Nimbadi Lepa*.

INTRODUCTION

Episiotomy is surgically planned incision on the perineum and the posterior vaginal wall during the second stage of labour^[1]. Indications of episiotomy is explained to the mother. Involvement of the incision up to the forchette, perineum skin and extent of incision, small or large extension up to the vaginal wall must be explained to the mother. It should neither be too early nor too late, because if we give incision soon it will fail the decent and expulsion of the part and more bleeding will take place. In case we give cut too late and the effect of local anesthesia will be over and mother will have severe pain during the cut.

Types of episiotomy:

Amongst 4 types of episiotomy the preferred one is medio-lateral episiotomy^[2]. Medial side of lateral: it is given in 6 o'clock position towards midpoint of the forchette at 45 degree angle to the midline towards the point in between the anus and the tuberosity of the ischium. It is easy to remember is 7 o'clock incision as it prevents the risk to bartholin's gland and opening of the anus. Injection of local anesthesia lignocaine 1% is given into the perineum so that the muscles of the perineum are sufficiently anesthetized.

Acharya Sushruta defined *Vrana* as a complex phenomenon causing destruction or rupture or discontinuation of tissue in a particular part of the body with discoloration. The "*Yonigata Vrana*" is difficult to heal as it has "*Stree Vishista Marma*" called "*Sevani*"

Acharya Sushruta has mentioned *Madhu* (honey) *Sarpi* (Ghee) and *Nimbapatra Churna* (powder of dry *Neem's* leaf) as a *Sadhyovrana Ropaka* (fresh wound healer)^[3]. (SU.CHI.1/68)

Sadhyovrana- which is manifested by external causes. they include accidental wound, traumatic wound and surgical wound. so this *Sadhyovrana* (fresh wound) can be called as *Agantujavrana* or *Shudhavrana*

CASE REPORT:

A 29 year old married woman visited the Prasutitantra and Streeroga I.P.D. of I.P.G.T. & R.A., Jamnagar on 06/08/2018 at 5:20am, with the 8th months 27days of amenorrhea, complaining of lower abdominal pain since last night. She was a second gravida with LMP on 09/11/2017 and EDD on 16/08/2018. She was delivered vaginally a male baby on 06/08/18, at 7:04am with 3.2kg baby weight. Episiotomy was given to the patient and three layer of episiotomy wound was sutured with chromic catgut no. "0" and "1".

On the 1st day after delivery in the morning (06/08/18), the sample of blood, urine investigations were given before starting the treatment. All the investigations were within the normal range.

She was complained of severe pain in stitches, edema and redness were present and discharge also present from sutured episiotomy wound. She was unable to sitting in squatting position for toilet and could not be slept well because of severe pain, breast feeding not properly onset before starting the treatment.

Method of application of drug - On the next day(07/08/2018) in the morning an informed written consent was taken before treatment then patient was taken in labour room. Firstly sutured episiotomy wound was clean with *Panchawalkala Kwatha*, then dressing of the patient was done with *Nimbadi Lepa*. Patient was shifted in Prasooti Tantra ward. In oral medication, *Saptavinshatiki Guggulu* was given 6gms, divided three time in a day with the *Anupana* of *Madhu*. General condition of the patient was good. She had mild relief in pain, edema and discharge were reduced, breast feeding onset properly. Personal history- Appetite, sleep was normal, urine and stool passed regular, blood pressure-120/80mm/Hg, pulse 78/m, temperature was normal.

On the very next day (08/08/2018) the same procedure was followed up to 7days after delivery. After that patient was advised to apply *Nimbadi Lepa* for next 7 days at her home with aseptic care and oral medication *Saptavinshatiki Guggulu* also continued for 15days. Total duration of use of drugs was 15 days.

After application of Drug, *Sootika* was advised:

- To retained the position at least 10 minutes.
- Don't flexed thigh during treatment.
- To maintain local hygiene

Table no.1-DRUGS AND POSOLOGY

Contents	Group A (Trial Group)
Drug Oral	<i>Saptavinshatiki Guggulu</i>
Doses	<i>Kola Pramana</i> (6gms in three divided dosage)
Route of administration	Oral
Duration	2 weeks
Drug Local	<i>Nimbadi Lepa</i>
Route of administration	Local – Episiotomy wound
<i>Aushadhakala</i>	2 times a day
Duration	2 weeks
Follow up	1 weeks

Table no.2 - Ingredients of *Nimbadi Lepa*^[4]

Sr.no.	Ingradients	Latin name	Proportion
1	<i>NimbapatraChurna</i>	<i>Azardirecta indica</i>	1 part (5gms)
2	<i>Madhu</i>	-	1 part (5gms)
3	<i>Go-Ghrita</i>	-	1 part (5gms)

Preparation of the drug: *Nimbapatra* was collected from local area and dried it in shade after that fine powder was done in grinding machine. *Nimbapatra Churna*, *Madhu* and *Go-Ghrita* were taken in equal proportion (5 gms each) and mixed well then apply on the episiotomy wound.

Table no.3- Ingredients of *Saptavinshatiki Guggulu*

Saptavinshatiki Guggulu mentioned in *Yogaratanakara Sadhyovrina Chikitsa*^[5]

Sr.no.	Name	Latin name	Part used	Proportion
1	<i>Shunthi</i>	<i>Zingiber officinale</i> Rose	Rhizome	1part
2	<i>Maricha</i>	<i>Piper nigrum</i> Linn	Seeds	1part
3	<i>Pippali</i>	<i>Piper longam</i> Linn.	Dry Fruit	1part
4	<i>Haritaki</i>	<i>Terminalia chebula</i> Retz.	Dry fruit	1part
5	<i>Vibhitaki</i>	<i>Terminalia bellerica</i>	Dry fruit	1part
6	<i>Amalki</i>	<i>Embellica officinalis</i>	Dry fruit	1part
7	<i>Musta</i>	<i>Cyprus rotundus</i>	Root	1part
8	<i>Vidanga</i>	<i>Embelia ribes</i>	Seeds	1part
9	<i>Guduchi</i>	<i>Tinosphora cordifolia</i>	Whole plant	1part
10	<i>Chitraka</i>	<i>Plumbago zeylanicam</i> Vahl	Root	1part
11	<i>Patola</i>	<i>Luffa acutangular</i>	Leaf	1part
12	<i>Pippli moola</i>	<i>Piper longam</i> Linn.	Root	1part
13	<i>Hapusha</i>	<i>Juniperus communis</i> Linn	Root	1part
14	<i>Devadaru</i>	<i>Cedrus devadaru</i>	Root	1part
15	<i>Tumbaru</i>	<i>Zanthoxylum alatum</i>	Leaf	1part
16	<i>Pushkaramoola</i>	<i>Inula racemose</i>	Root	1part
17	<i>Chavya</i>	<i>Piper retrofractum</i> Linn.	Root	1part
18	<i>Vishala(Indrayana)</i>	<i>Trichosanthes palmata</i> Roxb	Seeds	1part
19	<i>Haridra</i>	<i>Curcuma longa</i>	Rhizome	1part
20	<i>Daruharidra</i>	<i>Berberis aristate</i>	Rhizome	1part
21	<i>Gajapipali</i>	<i>Scindapsus officinalis</i>	Fruits	1part
22	<i>Vidalavana</i>	Ammonium salt	-	1part
23	<i>Sovarchallavana</i>	<i>Unaqua sodium chloride</i>	-	1part
24	<i>Yavakshara</i>	<i>Hordeum vulgare</i> L.	-	1part
25	<i>Saindhavalavana</i>	<i>Sodi chloridium</i>	-	1part
26	<i>Guggulu</i>	<i>Commiphora mukul</i>	<i>Niryasa</i>	2part
27	<i>Madhu</i>	<i>Mel</i>	-	<i>Anupana</i>

Table no.4 - Investigations

BEFORE TREATMENT(06/08/2018)		AFTER TREATMENT(20/08/2018)	
HAEMATOLOGICAL INVESTIGATIONS			
Total WBC	12,800		5,200
Differential WBC count	N	83%	62%
	L	14%	32%
	E	01%	03%
	M	02%	03%
	B	00%	00%
Hb%		6.4gms%	8.1gm%
ESR		60mm/hr	30mm/hr
Blood group		B+ve	-
Blood Sugar		69mg/dl	76mg/dl
MICROBIOLOGICAL INVESTIGATIONS			
	HIV	Negative	-
	HBsAg	Negative	-
	VDRL	Negative	-
URINE ROUTINE AND MICROSCOPIC INVESTIGATIONS			
	Physical	NAD	NAD
	Chemical	Albumin-++	NAD
	Microscopic	Pus cells-4-5 RBC-6-8 Epi.cell-1-2 Crystals-calcium oxalate+	Pus cells-1-2 RBC-Nil Epi.cell-1-2

CRITERIA FOR ASSESSMENT AND OBSERVATIONS**SUBJECTIVE PARAMETERS****Table no.5 Sutika Parikshana**

Days	Uterine involution	Breast feeding	Lochia
D-1	At the level of umbilicus	Proper onset & adequate feeding	3Pad change
D-2	1 finger below to the umbilicus	Proper onset & adequate feeding	3Pad change
D-3	2 fingers below to the umbilicus	Proper onset & adequate feeding	3Pad change
D-4	3 fingers below to the umbilicus	Proper onset & adequate feeding	2Pad change
D-5	4 fingers below to the umbilicus	Proper onset & adequate feeding	2Pad change
D-6	5 fingers below to the umbilicus	Proper onset & adequate feeding	2Pad change
D-7	Not palpable	Proper onset & adequate feeding	1Pad change

Table no.5 - Pain and tenderness assessment

Sr.no	Symptoms	BT	AT-D1	D3	D5	D7	Df%
1	Pain	3	3	2	1	0	100%
2	Tenderness	3	3	2	1	0	100%

OBJECTIVE PARAMETERS**Table no.6 - REEDA SCALE^[6]**

S.no	Parameters	BT	AT-Day1	Day3	Day5	Day7	Df%
1	Redness	3	3	2	1	0	100%
2	Edema	3	3	2	1	0	100%
3	Ecchymosis	1	1	0	0	0	100%
4	Discharge	3	3	2	1	0	100%
5	Approximation	0	0	0	0	0	100%

SCORE INTERPRETATION**Table no.7 - Pain Assessment: - Numeric Rating Scale^[7]**

Sr.no	Pain	Grades	Grade
1	No pain	0	0
2	Mild pain	1-3	1
3	Moderate pain	4-6	2
4	Severe pain	7-10	3

Table no.8 - Tenderness

Tenderness	Grade
No Pain	0
On applying pressure	1
On gentle touch	2
On wound and surrounding area	3

Table no.9 - Objective parameters- REEDA SCALE

S.no	Parameters	Findings	Grade
1	Redness	None	0
		Within 0.25cm of incision bilaterally	1
		Within 0.5cm of incision bilaterally	2
		Beyond 0.5cm of the incision bilaterally	3
2	Edema	None	0
		Less than 1cm from incision	1
		Between 1 to 2 cm from the incision	2
		> 2 cm from incision	3
3	Ecchymosis	None	0
		Within 0.25cm bilaterally or 0.5cm unilaterally	1
		Between 0.25cm to 1cm bilaterally or between 0.5 to 2cm unilaterally	2
		> 1cm bilaterally or >2cm unilaterally	3
4	Discharge	None	0
		Serum	1
		Sero-sanguinous	2
		Bloody, purulent	3
5	Approximation	Closed	0
		Skin separation 3mm or less B/L from incision	1
		Skin & subcutaneous fat separation	2
		Skin, subcutaneous fat & fascial layer separation	3
			3

DISCUSSION-

Classics of *Ayurveda* have emphasized at various places to take care of wounds which occur due to vitiated *Doshas* or any trauma. The grading of *Shuddha Vrana* (fresh wound) depends on the amount of *Dushti* present in local *Dhatu*, i.e., *Twaka* and *Mamsa* with *Rakta Dhatu*. The drugs (*Nimbadi Lepa* and *Saptavinshaiki Guggulu*) contained *Shoshana* (absorptive) *Sthambhana* (coagulation/contraction) and *Rakta Shodhaka* (blood purifier) properties, along with *Samshodhana* (detoxifying, cleansing) which provided the desired effect. The *Ropana* of *Vrana* (wound) could have been possible after *Shodhana* (medical debridement)

due to removal of *Dhatu Dushti* with the help of *Yogavahi*(catalytic) properties of *Go-Ghrita*. *Madhu* has been described to have properties like *Lekhana*(scraping), *Sandhana* (union), *Shodhana* (purification), *Ropana* (healing),and *Tridoshaghna* (pacifying all three *Doshas: Vata, Pitta, and Kapha*). It is used as an external application in *Vrana* (wound), either alone or in combination with *Sarpi* (*Goghrita*, i.e., ghee made from cow's milk)^[8]. Honey is hygroscopic in nature, with a pH of 3.2–4.5^[9–12]. It prevents colonization and bacterial growth in tissues due to this acidic nature. Most microorganisms do not grow in pure honey because of its low water activity (a_w) of 0.6^[13]. Honey also has antibacterial properties^[14] The presence of hydrogen peroxide^[15,16] and a high osmotic pressure^[17] also contribute to the antibacterial effect of honey. These natural properties of *Madhu* are said to make it suitable for use in wound management. *Madhu* has *Vranaropak* properties as per the principles of the sixty *Upakramas* of *Vrana* management described in the *Sushruta Samhita*^[18]. *Madhu* is believed to act by ‘pacifying’ the three vitiated *Doshas*, i.e., *Vata, Pitta, and Kapha* by multiple actions attributable to its *Madhura* (sweet) *Rasa*, *Kashaya*(astringent) *Uparasa*, *Ruksha* (dry) *Guna*, *Sheeta* (cold) *Virya*, *Madhura Vipaka*, and *Sukshma Marga Anusari* (ability to permeate in microchannels) *Prabhava*. *Madhura Rasa* gives nutrition to the tissue, which helps in granulation tissue formation, while *Kashaya Rasa* provides *Lekhana* (scraping) that helps in de-sloughing, preparing the wound for healing. Thus, *Madhu* has excellent properties to heal the wound by virtue of its *Sodhana* (purification), *Ropana* (healing), and *Sandhana* (union) actions. The *Madhura Rasa* of the honey reduced the vitiated *Vata Dosh*a, leading to reduced pain and enhanced healing. *Madhu* has been described as having the ability to promote phagocytosis, detoxification, and proteolysis, all of which assist in cleaning the wound^[19-20]. Dressing of the wound with *Nimbadi Lepa* (*Nimbadi* ointment) and oral medication of *Saptavinshatiki Guggulu* helped to inhibit the growth of micro-organisms and proper healing of the wound. Popularity of natural products or their derivatives role in diseases cure and prevention is increasing worldwide due to less side effect properties. *Neem*(*Azadirachta indica*) and its ingredients have therapeutics implication and have been traditionally used worldwide especially in Indian Subcontinent since ancient time. Clinical based studies confirmed that *Neem* plays an important role in the prevention of various diseases. The role of active ingredients as chemo preventive effect has been noticed in various tumour via modulation of numerous cells signaling pathways. **Go-Ghrita(cow’s Ghee)**: According to *Bhavaprakasha*, *Sushruta*, *Charaka* and almost all *Acharyas* have mentioned that cow’s Ghee is beneficial for visual acuity byoral as well as local use. Attributes of Ghee i.e. unctuousness and coldness are antagonistic to those of *Vata* and *Pitta* like dryness, lusterless, roughness and heat respectively. Cow’s Ghee contains carotene in the amount of 3.2 – 7.4 μ g/g, vitamin A in the amount of 19 – 34 I.U./g and Tocopherol (vitamin E) in the amount of 26 – 48 μ g in it, all of which are beneficial for eyes. It also contains vitamin D and K. Properties of *Neem* leaves: Purify the blood, prevent damage caused by free radicals in the body, remove toxins, treat insect bites and ulcers. *Neem* leaves have anti-bacterial properties which works wonders on infections, burns and any kind of skin problems. It destroys the bacteria that causes infections, stimulates the immune system and encourages rapid healing ^[21]. leave extracts of *Azadirachta indica* promote wound healing activity through

increased inflammatory response and neovascularization^[22]. Oral drug *Saptavinshatiki Guggulu* promote the immunomodulator effect, increase breast milk production and adequate uterine involution.

CONCLUSION

It can be concluded that by the use of local application of *Nimbadi Lepa* and oral administration of *Saptavinshatiki Guggulu* provided highly significant result within 15days by the reduction in the size of wound, promotion of healing, adequate breast feeding, uterine involution and it proved with good results in the form of normal colored scar formation without any complication, which proved the *Vaikritapaham* property of the compound drug.

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