



Research Article

UTILITY OF DIFFERENT TYPES OF SIVANA KARMA IN UTKARTANA – A COMPARATIVE STUDYSunita Siddesh^{1*}, VNK Usha²¹Phd Scholar, ²Professor, Guide, HOD PG Dept. of PTSR, SDM College of Ayurveda, Udupi, Karnataka, India.

KEYWORDS: Utkartana, Sivanakarma, Wound healing, Vrana ropana.

ABSTRACT

Episiotomy (*Utkartana*) is a surgical incision on the perineum and the posterior vaginal wall during the second stage of labour, for the purpose of either aiding the actual delivery process or preventing tears and lacerations, it is the most common surgical operations performed in obstetrics. Repair of episiotomy is also an important aspect. If it is not repaired properly it may leads to complications like wound dehiscence, rectovaginal fistula, dyspareunia. While explaining the concept of *Mudhagarbha chikitsaacharyas* have mentioned *Utkartana vidhi* to expel the *Mudhagarbha* which can be correlated to episiotomy procedure where *Acharya* mentioned that cutting of organ which is obstructing is *Utkartana karma*. Once the process of delivery completes the next immediate measure to be followed is suturing the cut part i.e., *Seevana karma*.

In *Ashtavidhashastra karma Adyaya*, *Acharya Sushruta* has told 8 different types of *Shashtra karma's*, *Sivana karma* is one among them. And *Sivana* is also told as best treatment in *Bhinna*, *Medhasamuttha vrana* & *Sadyovrana*. Perineal region can be considered as *Medhosamutthita* and *Utkartana* as *Vaidyakrutasadyovrana*, so *Sivana karma* can be considered as best treatment for *Utkartana*. The contemporary science explains detailed description about repair of episiotomy in 3 layers with different type of suturing technique. Here by we have made an attempt to study efficacy of different types of *Sivana karma* done in 3 groups i.e., skin suturing done with Subcutaneous suturing, Matters suturing, Continuous suturing and also to evaluate the faster and easy wound healing without complication.

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INTRODUCTION

The chain of thread or stitched with thread, any activity involving suturing with needle is *Seevana*, any action done to approximate parts by suturing is termed as *Seevana*¹.

Acharya shushruta has given the definition of *Sivan karma*² while explaining *Ashtavidha Shashtra karma*³ in *Dwivraniya adhyaya*⁴, and he has clearly told that joining the cut edges of wound facilitates quick wound healing, and for this purpose he has told to use *Ksauma sutra*, *Antavalkala* of *Ashmantaka*, *Snayu*, *Bala* etc. these all explanations which are told in our classics is practiced till today and is still considered as best treatment for cut wounds.

Episiotomy, as first described by Sir Fielding Ould in 1742, it is the surgical incision and repair of a women's perineum to enlarge the vaginal orifice in order to facilitate the easy delivery of a baby⁵. An episiotomy is minor surgical procedure where skin and underlying muscle of the perineum is cut at the end of second stage of labour (crowning) to assist in child birth by enlarging the birth canal opening and allowing the baby to pass through more easily⁶. The repair of an episiotomy following child birth as well as placenta is the most

common surgical procedure performed on women. The repair of episiotomy is done in 3 layers. The principles to be followed are - Perfect haemostasis, To obliterate the dead space, suture without tension⁷. Vaginal mucosa and sub mucosal tissue sutured first then perineal muscles and at last skin and subcutaneous tissues which sutured by interrupted sutures⁸. As the site of episiotomy is perineal region where moisture will be more as of presence of vaginal secretions during *Sutika kala*. Hence along with other measures of healing of episiotomy wound the type of suture which is selected to close the wound is also plays an important role. Even *Acharya Susruta* have mentioned about precautionary measures to promote easy and fast healing without any complications.

Our *Acharya's* have also told that while doing *Seevana karma* the stitches should not be too far and too near⁹.

Method of Ayurvedic sivana karma

Different types of *Sivanakarma* has been mentioned in context of *Shashtra karma* by *Acharya susuruta*. *Sivana* to be done in case of *Sadhyovrana* and *vrana* which is present on *Chala sandhi*¹⁰, and *Acharya susruta* has mentioned 4 types of *Sivana karma*.¹¹

- 1) **Vellitaka**- literally it means encircling, *Vellitaka* is creeper plant, so the sutures which are done continuously are said as *Vellitaka*, and it can be compared to glover's continuous suture.
- 2) **Gophanika**- this type of *Seevana karma* can be compared to blanket suture.
- 3) **Tunnasevani**- this type of *Seevana karma* can be compared to subcuticular suture, in this type the thread is not seen externally it is used to prevent external scar.
- 4) **Rujugranthi**- this type of *Seevana karma* can be compared to interrupted suture, and mattress type of suture can be included under this.

Where as in contemporary science different types of suturing like simple, interrupted suture, matters, simple running suture, running locked suture etc. are told according to the structure involved. And here in this study we have taken 60 primi and multi patients divided in to 3 groups where in episiotomy skin sutured with 3 different kind of suture namely subcutaneous suturing, mattress suturing, and simple suturing, and are advised with *Samanyasutikaparicharya*.

Aim

To study the efficacy of different type of *Sivanakarma* on *Utkartana*.

Objective

1. To establish effective suturing method for easy healing of *Utkartana*.
2. To avoid complication of *Utkartana*.
3. To compare the effect of all the types of suturing.

Method of collection of data

❖ Sampling Technique

The subjects who fulfil the inclusion and exclusion criteria and complying with the informed consent (IC) will be selected using lottery method of random sampling technique.

❖ Sample Size

- All primi gravida Patients with episiotomy wound will be randomly assigned into 3 groups i.e., Group A, group B, and Group C, each comprising minimum of 20 patients.
- A case proforma containing all the necessary details pertaining to the study will be prepared.

❖ Statistical Test

- The data obtained in both groups will be recorded, tabulated and statistically analyzed using suitable statistical methods.

Inclusion criteria

1. Age - 18 year to 40 year
2. All primi gravida patients delivered with episiotomy registered in I.P.D of SKAMCH & RC Bangalore, from July 2015 to July 2016.

Exclusion criteria

1. Less than 18 year and above 40 year age.
2. Severe anaemic patient Hb < 8gm%.

3. Patient with systemic disorder and with any systemic infection, who is on any antibiotic treatment.
4. Perineal tear.

Material and methods

- **Study design**- 60 selected primi patients who underwent episiotomy in the IPD of dept. of PTSR, from SKAMCH & RC Bangalore, were selected for the study and were divided into 3 equal groups of 20 patients in each group.
- Group A- patients of group A, who underwent episiotomy were subjected with Subcutaneous suture.
- Group B- patients of group B, who underwent episiotomy were subjected with Simple suture.
- Group C- patients of group A, who underwent episiotomy were subjected with mattress suture.

Written consent

Patients were informed regarding consequences of treatment and written consent was taken from the patient or her legal guardian.

Laboratory Investigations

Hb%, B.T, C.T, T.L.C., D.L.C., ESR, HIV1 & 2, HbS Ag, VDRL, Blood group, Blood Sugar, Urine Routine & Microscopic investigations were carried out.

Duration of the Study

Total duration of the study is 7 days.

Pre test- 1st day of treatment

Post test- 7 day after treatment

Assessment Criteria

Subjective

Pain at stitches: Presents / Absent

Pricking sensation: Present/Absent

Objective

Oedema: Present / Absent

Discharge: Present / Absent

Dehiscence: Present/ Absent

Standard REEDA scale¹² is considered for the assessment of efficacy of the treatment.

Procedure of treatment

Patient given lithotomy position. After delivery of foetus and placenta Episiotomy stitched with chromic catgut no. 0.

Group A- subcutaneous suturing- it is initiated by placing a single subcutaneous suture with the knot tied towards the wound surface. Then it is looped through the subcutaneous tissue by passing through the opposite sides of the wound. It is tied at the distal aspect of the wound, with the terminal end of the suture to the previous loop placed on the opposing side of the wound¹³.

Group B- Simple suturing - The needle entered one side of the wound and penetrated well in to dermis or subcutaneous tissue. The needle is then passed through the subcutaneous tissue to the opposing side of the wound and exists closer to the wound edge and tied¹⁴.

Group C- Mattress suture - The needle is initially placed forward in needle holder and is passed through both wound edge for the far-far pass. The needle is then placed backwards in the needle driver. The near-near pass is performed with the needle passing within 1 to 2 mm of the wound edge. The depth of near-near pass is within the upper dermis or about 1 to 2 mm deep. The knot is tied over the suture was placed¹⁵.

After which normal *Sutikaparicharya* followed for all 3 group. And follow up done on 7th day to assess the results.

• **Advice to patients**

Personal Hygiene

• **Efficacy of treatment**

The efficacy of treatment was evaluated as per REEDA Scale.

Table 1: Parameters of different type of Sivanakarma on Utkartana

Assessment Criteria			Day 1		Day 7	
			NO.	%	NO.	%
Redness	Group A	Present	20	100	5	25
		Absent	0	0	15	75
	Group B	Present	20	100	5	25
		Absent	0	0	15	75
	Group C	Present	20	100	1	5
		Absent	0	0	19	95
Edema	Group A	Present	20	100	5	25
		Absent	0	0	15	75
	Group B	Present	20	100	5	25
		Absent	0	0	15	75
	Group C	Present	20	100	1	5
		Absent	0	0	19	95
Ecchymosis	Group A	Present	20	100	3	15
		Absent	0	0	17	85
	Group B	Present	20	100	2	10
		Absent	0	0	18	90
	Group C	Present	20	100	0	0
		Absent	0	0	20	100
Approximation	Group A	Present	0	0	3	15
		Absent	20	100	17	85
	Group B	Present	20	100	5	25
		Absent	0	0	15	75
	Group C	Present	20	100	0	0
		Absent	0	0	20	100
Discharge	Group A	Present	20	100	1	5
		Absent	0	0	19	95
	Group B	Present	20	100	3	15
		Absent	0	0	17	85
	Group C	Present	20	100	0	0
		Absent	0	0	20	100

1. Redness: Present / Absent

2. Edema: Present / Absent

3. Ecchymosis: Present / Absent

4. Discharges: Present / Absent

5. Approximation: Present / Absent

Observation

Statistical analysis

After collection of data from all the three group it was analyzed statistically by applying proper tests such as chi square test.

Table 2: Relief in parameter on 7th day in Group 1 subcutaneous suturing method

Parameter	No of subject got relief	% of subject got relief	X ² value	P value
Redness	15	95	34.12	P <0.001
Edema	15	90	34.12	P <0.001
Ecchymosis	17	95	52.14	P <0.001
Discharges	19	100	56.06	P <0.001
Approximation	17	100	39.49	P <0.001

Table 3 : Relief in parameter on 7th day in Group 2 simple suturing method

Parameter	No of subject got relief	% of subject got relief	X ² value	P -value
Redness	15	75	34.12	P<0.001
Edema	15	75	34.12	P<0.001
Ecchymosis	18	90	45.52	P<0.001
Discharges	17	85	39.49	P<0.001
Approximation	15	75	34.12	P<0.001

Table 4: Relief in parameter on 7th day in Group 3 mattress suturing method

Parameter	No of subject got relief	% of subject got relief	X ² value	P value
Redness	19	95	52.14	P<0.001
Edema	19	95	52.14	P<0.001
Ecchymosis	20	100	56.06	P<0.001
Discharges	20	100	56.06	P<0.001
Approximation	20	100	56.06	P<0.001

Table 5: compression between all group for ability to sit and integrity of perineum

Groups	Ability to sit
Subcutaneous suturing	6 th day
Simple suturing	5 th day
Mattress suturing	4 rd day

DISCUSSION

Perineal area must be protected as women has to undergo repeated child birth and continue the marital life which inturn maintains physical and mental status of woman. This topic was selected for the study as it is one of the most common operation in obstetrics which is life saving for baby. Though it is small incision but pain and discomfort is more. Infection and other complications of episiotomy may hamper woman’s physical, mental and sexual life, and as suturing method also have significant role in healing the wound. During the course of study it has been observed that all the three types of sutures have shown statistically significant results. But when comparison is done between three group mattress suture has shown better results than the other two groups in parameters like approximation, discharge, Ecchymosis, edema, and redness of wound.

CONCLUSION

On the basis of above results it is concluded that Mattress type of suturing is very effective in healing of episiotomy wound. As discussed above there are many complications of episiotomy wound which may occur even after taking proper care of episiotomy wound and following *Sutikaparicharya*. In this study it is proved that the type of suturing also have its own importance in healing episiotomy wound.

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