

EFFICACY OF PATRANGA PATRA KWATH YONI DHAWAN IN EPISIOTOMY
WOUND HEALING

Hemalata R. Jalgaonkar

Professor and HOD, Dept. of Streeroga & Prasutitantra, Ashtang Ayurved Mahavidyalaya, Pune-30, Maharashtra, India.

Corresponding Author: hrj9371@gmail.com

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**ABSTRACT**

Though pregnancy is a very important event in women's lives, labour pain is the most strenuous event of women's lives. As mortality is very high during labour, women are called 'to get new life'. There are so many complications of labour and its effects on the mother and are very severe to deal with. An episiotomy is a surgical incision of the birth canal performed during labor to enlarge the opening for the foetus's head to pass through. Thus, Perineal trauma may occur spontaneously or intentionally by a surgical incision(episiotomy). As a result, *Yoni vrana* is formed and is an *Agantuj vrana* and further is a type of *Chinna vrana*. *Yoni vrana* has signs and symptoms of *Sadyovrana*. *Sadyovrana* is a *Shuddha vrana*, so *yonivrana* is treated as *Shuddha vrana*. *Dhawan* is one among the sixty treatment modalities which have been incorporated into our classics for better wound healing with minimum scar formation and control of pain. Also, *Patranga* is considered as *Vranaropak* in our classic *granthas*. Delay in wound healing is mainly due motivation of *Kaphadosha* and its *Sthansanshray* at the wound. Therefore, to get rid of *kaph sthansanshray* at a wound accompanied by itching, pain, and discharge, *shodhan* of *yonistha kapha* dosha is important. So, *kaphaghna karya* is done by *Patranga patra kwath yonidhawan* which acts on *sthanika doshas* and breaks its *sthansanshray*. In the management of episiotomy wounds, there should be not any secretions at the perineal region, and this is achieved by *Patranga patra kwath yonidhawan*. This can improve the quality of life of a woman in the post-natal period.

Keywords: Vitapched, Episiotomy, Patranga Patra Kwatha Yonidhawan, Vrana

INTRODUCTION

Streeroga Shashtra and *Prasuti Shashtra* was so much developed in country of us that a separate treatise was written, and it was devoted to the branch of medicine. The written treatise by *Kashyap* is well known today as *Kashyap Samhita*, it stated that- एकपादो यमकुले पाद एक इहं स्थितः । स्व दुःख स्त्रियस्तथा इत्येव ब्रुवते मिथः ॥¹ का.सं.जातीसूत्रिय शा.अ

Prasavastha is a delicate bridge between *Garbhavastha* and *Sutikavastha*. All *doshas* and *dhatu*s are vitiated in this stage. Hence, it is very important to sustain the *prakrut* stage of *doshas* and *dhatu*s².

त्रयो दोषाः प्रकुप्यन्ति विचाल्यन्ते च धातवः। गर्भिणी तदवस्थाहि यन्नार्या विशेषतः॥ का.सं.जातीसूत्रिय शा.अ

Many complications may occur in *prasavavastha*, and it may produce many *Yonirogas*. So, in *ayurveda* to overcome all these complications, some specific *Paricharyas* (regimens) are described. These *paricharyas* described by *ayurveda* are *doshas* present in the body during the antepartum, intrapartum, and postpartum periods to minimize the complications of parturition. *Sutika* is a state of a woman immediately after delivery and extends till the time she continues breast feeding. In *prasuta*, after the strenuous process of labour, a state of flux is seen in *doshas*, mainly the *vata dosha* is aggravated and this needs special nurture to regain its normal state.

Ayurved classics have specifically mentioned the '*Sutika Paricharya*' which is to be followed in this stage to maintain the health and equilibrium of *doshas*. This regimen not only provides comfort and relief from physical and mental trauma but also prevents any kind of infection that may be caused as a result of trauma to the perinium and vagina. *Sushrutha samhitha* has given a superior position to *Vrana*. *Suthrastana* of *Sushrutha Samhitha* shows a description of *Vrana* in most of the chapters and *Chikitsa stana* of *Sushrutha samhitha* begins with chapters of *Vrana*. Sixty treatment modalities are mentioned in *Vrana*. No other disease has such a large number of treatments, which reveals the importance of *Vrana* as a *roga*³. *Ayurveda* can surely

provide a solution in such a scenario. Substitution of these antibiotics with *Ayurvedic* medications with known antimicrobial activities can be a solution. *Ayurvedic* herbal preparations and their extracts have great potential for antimicrobial activity against bacterial pathogens and can be used in the treatment of infectious diseases.

Episiotomy wound may be compared with *Sadyo vrana*, *Kshata vrana*, and *Agantuj vrana* as per *Acharya Sushrutha*⁴.

गर्भसमंताद् पिडिते,वायुना योनिमुखं आक्रान्तया। अस्या गर्भिण्या योनि प्रसारयेत्, अभ्यंगादि अनेन विकासयेत्॥ अ.ह.शा.१/८१(अरुणदत्त)

In *ayurveda*, there are many herbal drugs and pharmaceutical preparations mainly described for the purpose of *Shodhana* and *Ropana* of the wound. One of the procedures as described by *Acharya Sushrutha* is *Yonidhawan*. It works by its *shodhan*, *ropana karma* as stated in *granthas*.

Modern Review:

In present-day practice, taking episiotomy incision is a routine practice to avoid vaginal trauma and it is to be supported by the use of prophylactic antibiotics and analgesics in order to prevent infection and pain⁶. The vaginal orifice lies between the excretory organs of the urethra and anus, so the chances of infection are increased. Maternal mortality is a severe burden as infection is the most common puerperal complication. Many prophylactic antibiotics are widely used in India for preventing such maternal infections. Every time an antibiotic is used whether appropriately or not increases the probability of the development and spread of antibiotic-resistant bacteria. Antibiotic resistance, which is now a global concern, is a major public health issue in developing nations, including India where the burden of infectious diseases is high and healthcare spread is low⁷. The study drug may also improve the results in symptoms like *Lalima*, *Shohta*, *Vivarnata*, *Strava*, *Vranaoshtha*, and *Vedana*. The drug is prepared by a method mentioned in *Sharangdhar Samhitha*⁸. Considering the above factors, this study is

planned to evaluate the efficacy of the local administration of *Patranga Patra*^{9,10} *Kwatha Yonidhawan* in Episiotomy wound healing. Such a type of study has never been done previously. Studying is safe.

AIM

To study the efficacy of *Patranga Patra Kwath Yoni Dhawan* in Episiotomy wound healing.

DIAGNOSTIC CRITERIA

1. Redness (*Lalima*)
2. Edema (*Shohta*)
3. Echymosis (*Vivarnata*)
4. Discharge through the wound (*Strava*)
5. Approximation of wound (*Vranaostha*)
6. Pain at site (*Vedana*)

INCLUSION CRITERIA

1. Patient willing for treatment.
2. Patients of any caste, parity, income group, and occupation were selected.
3. Age 18-40 years

EXCLUSION CRITERIA

1. The patient is not willing for the treatment.
2. Patients with any bleeding disorders will not be selected.
3. Patient with Diabetes Mellitus.
4. Severe anaemia in which Hb is less than 9.
5. Convulsive disorders with severe vulval oedema.
6. Immunocompromised patients will be rejected.
7. All types of malignant diseases.
8. Mentally retarded patient.
9. 3rd and 4th-degree perineal tear.

WITHDRAWAL CRITERIA

1. The patient refuses to continue treatment.
2. The patient missed daily follow-ups.
3. If patients develop any adverse effect or there is an aggravation of symptoms, present treatment will be stopped immediately, and standard treatment will be started.

ASSESSMENT CRITERIA-The effect of treatment will be assessed on the basis of the following parameters-

Lalima (redness)

Shoth(edema)

Vivarnata(ecchymosis)

Strav (discharge)

Vrana ostha (approximation)

Vedana (pain)

REEDA scale

REDNESS

point 0- none.

point 1- within 0.25 cm of the incision bilaterally.

point 2- within 0.50 cm of the incision bilaterally.

point 3- beyond 0.50 cm of the incision bilaterally.

EDEMA

point 0- none.

point 1- perineal <1cm from the incision.

point 2- perineal and/or vulval, 1-2 cm from the incision.

point 3- perineal and/or vulval, >2cm from the incision.

ECHYMOSIS

point 0- none.

point 1- within 0.25 cm bilaterally or 0.5 cm unilaterally.

point 2- within 1 cm bilaterally or 0.5-2cm unilaterally.

point 3- >1cm bilaterally or >2cm unilaterally.

DISCHARGE

point 0- none.

point 1- serous.

point 2- serosanguinous.

point 3- bloody purulent

APPROXIMATION

point 0- none.

point 1- skin separation < or =3mm

point 2- skin and subcutaneous fat separation.

point 3- skin and subcutaneous fat and facial layer.

REEDA SCALE- sum (points for all parameters)

Interpretation: Min score- 0 & Max score-15 (Higher the score, the more severe the perineal trauma)

VAS SCALE: Grading of VAS (Visual Analogue Scale)

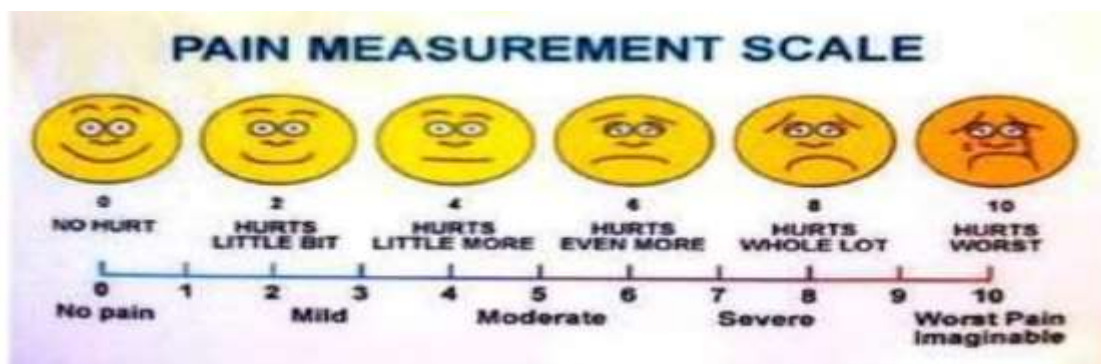


Figure 1- VAS scale

Grade Pain

- 0-1 (1) No pain
- 2-3 (2) Mild pain
- 4-6 (3) Moderate pain
- 7-8 (4) Severe pain
- 9-10 (5) Worst pain

Each patient will be assessed for the following criteria and graduation will be done.

- 1) Reed scale
- 2) Vas scale

- Pre and Post-treatment assessments will be done.
- Improvement will be judged on the basis of relief in signs and symptoms of disease depending upon their severity.
- Swelling and discharge at episiotomy wounds are the cardinal symptoms that will be assessed on severity and persistence of duration.

MATERIAL AND METHOD

- 1) Literature-Available in all *Ayurved Samhitas* and Modern textbooks.
- 2) Study Centre-Ashtang Ayurved Rughalaya, Pune-30.
- 3) Number of patients- 50 in each group.
- 4) Type of study-Open Labelled Randomised, Controlled, Prospective study.

Group A: Experimental group (50 patients)

The patients in Group A will be treated as follows:

- *Patranga patra kwath*(*madhu* as *prakshepa* used) *yonidhawan* 500ml once a day locally on episiotomy wounds.
- Duration of treatment – 7 days
- Time - 1 to 1.5 minutes

Group B: Control group (50 patients)

The patients in Group B will be treated as follows:

- *Triphala kwath yonidhawan* 500 ml once a day locally on episiotomy wound.
- Duration of treatment- 7 days
- Time - 1 to 1.5 minutes

Effects of Patranga Patra kwath:

1. **Ropana**-Healing of any *vrana* cannot occur without the reduction of the clinical features of *shotha*. It is necessary for *ropana* (healing) of *vrana* at early stages as it delays healing if persists for a longer duration.
2. **Prinana (nutrition), Poshan (nourishment), Dhaturvardhan (tissue growth)** -All activities must be due to *madhur rasa*, and it helps to contract the wound size by achieving fibrosis and Epithelialisation.
3. **Raktashodhan** (purification of blood)-It is due to *the tikta* and *kashay rasa* of the drug.
4. **Stambhana karma** –It is done by *Shoshana guna* of *Kashay, tikta rasa*, and *vishada guna* along with *kledahara, Raktastambhana*, and *chedana* activities followed by *Krimihara* (antimicrobial) leading to prevention of discharge and secretion.
5. **Vatahara**- It is due to *guru, snigdha guna, Daahprashaman*, and *shothahar* effects observed due to *shita guna* and *kashay rasa* which helps to reduce the inflammation and thus helps to relieve pain and tenderness.
6. **Balya and poshan** – It helps in the promotion of healing by *Dhaturvardhan* (growth of tissue) leading to healthy desired scar formation. *Snigdha* and *balya* properties of *madhura rasa* produce a normal smooth scar.

Properties of Caesalpinia sappan leading to wound healing¹¹:

Anti-inflammatory activity, antimicrobial activity, Analgesic activity, Acaricidal activity, Antibacterial activity, Vasorelaxation effect

Properties of honey¹²:

Chedana –This property of Madhu is nothing but the separation of dead tissue from surrounding healthy tissue.

Ruksha guna – It is necessary to get rid of excessive discharge for proper wound healing. *Madhu* helps in this by virtue of its *ruksha guna*.

Sandhana property- After proper *shodhan* of the wound, it helps in healing and bringing together the cut edges by its *shodhana* property.

Agnideepana property- *Madhu* possesses this property and hence acts on local *dhatwagni*.

Savarnikarana – It helps in preserving the natural skin colour.

Sukshma marg Anusari – The function of *Madhu* is performed only after its penetration deep into the tissue at the cellular level.

Yogvahi property- Due to this property, without changing its own properties, *madhu* gives the effect of the drugs added to it.

Effect of honey on wound healing¹³: -Antimicrobial activity, Low pH of honey, Healthy granulation tissue formation, epithelization, Collagen fibres formation, and Direct nutrition effect of honey are the properties of honey. Hydrogen peroxide in honey is present in a concentration of only 1 m mol/ lit in honey. The concentration of peroxide is high enough to kill pathogenic bacteria but doesn't harm the healing tissue.



OBSERVATIONS AND RESULTS(Table no.1)

Group	A	B	Total
No patients in the beginning	50	50	100
Patients dropped out	0	0	0
Patients remained till the end of the Trial	50	50	100

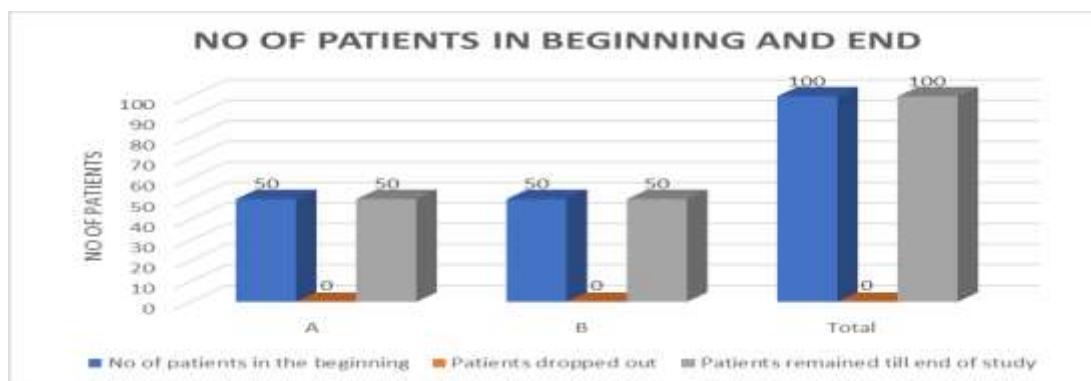


Figure 2- No. of patients at the beginning and end.

1.AGE(Table no.2)

Sr. No.	AGE	No of Patients			Percentage		
		Grp. A	Grp. B	Total	Grp. A	Grp. B	Total
1	15-20 YEARS	4	1	5	8%	2%	5%
2	21-25 YEARS	26	26	52	52%	52%	52%
3	26-30 YEARS	17	19	36	34%	38%	36%
4	31-35 YEARS	3	4	7	6%	8%	7%
	TOTAL	50	50	100	100%	100%	100%

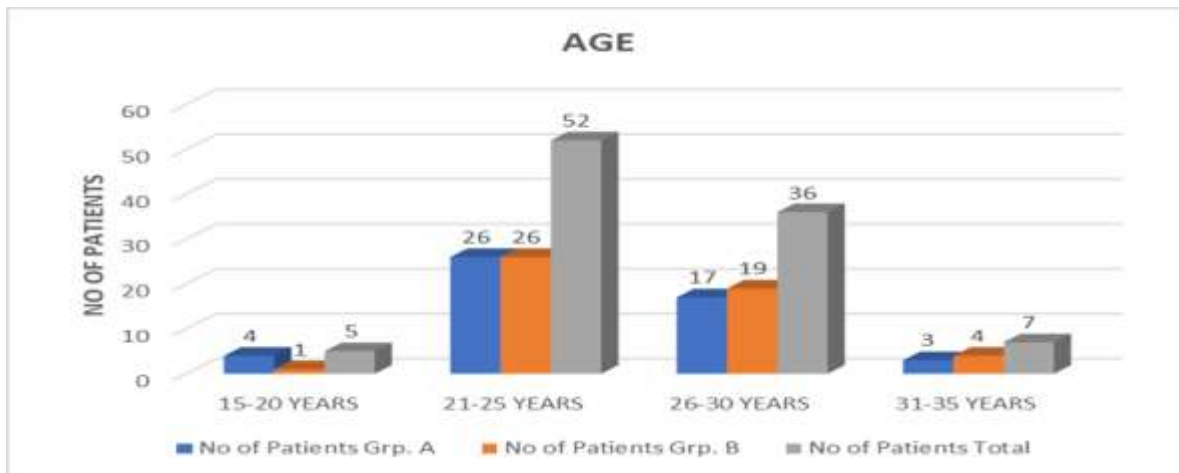


Figure 3- age-related distribution

2.PRAKRUTI(Table no.3)

Sr. No.	PRAKRUTI	No of Patients			Percentage		
		Grp. A	Grp. B	Total	Grp. A	Grp. B	Total
1	VP	16	17	33	32%	34%	33%
2	PV	4	4	8	8%	8%	8%
3	PK	14	12	26	28%	24%	26%
4	KP	9	11	20	18%	22%	20%
5	VK	4	3	7	8%	6%	7%
6	KV	3	3	6	6%	6%	6%
	TOTAL	50	50	100	100%	100%	100%

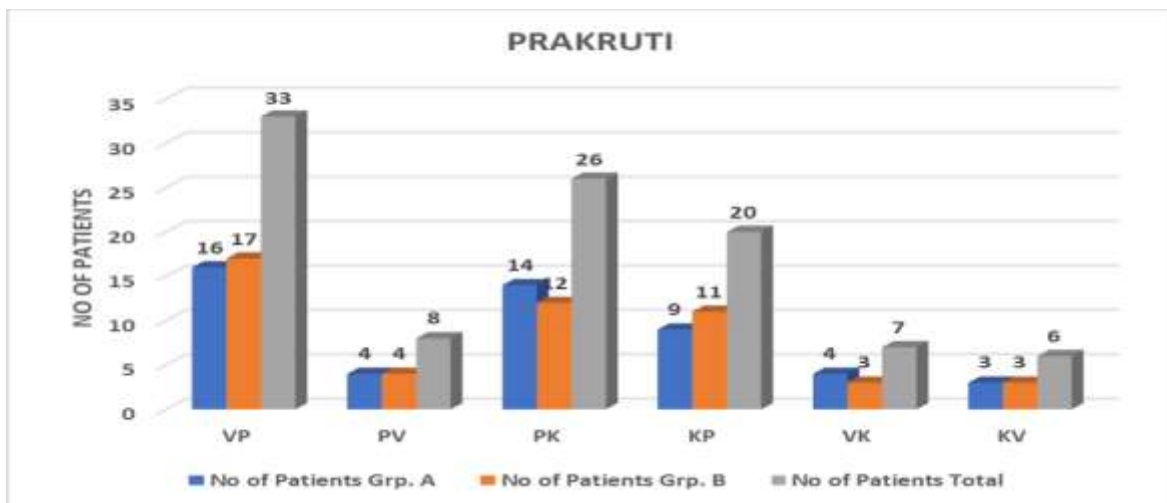


Figure 4- Prakruti related distribution

3.PARITY(Table no.4)

Sr. No.	PARITY	No of Patients			Percentage		
		Grp. A	Grp. B	Total	Grp. A	Grp. B	Total
1	P1	30	30	60	60%	60%	60%
2	P2	18	17	35	36%	34%	35%
3	P3	2	2	4	4%	4%	4%
4	P4	0	1	1	0%	2%	1%
	TOTAL	50	50	100	100%	100%	100%

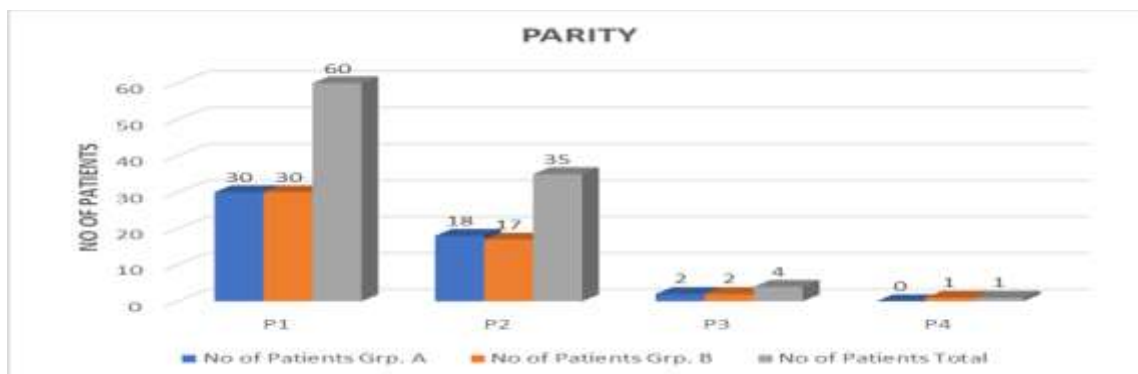


Figure 5-Parity related distribution

4.HB%(Table no.5)

Sr. No.	HB%	No of Patients			Percentage		
		Grp. A	Grp. B	Total	Grp. A	Grp. B	Total
1	9 – 11 gm%	18	11	29	36%	22%	29%
2	11.1- 14 gm%	32	39	71	64%	78%	71%
	TOTAL	50	50	100	100%	100%	100%

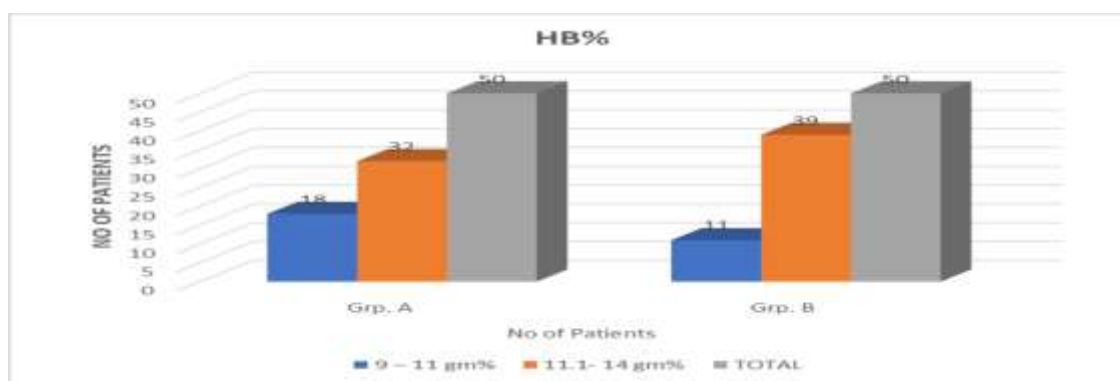


Figure 6- HB% related distribution
Effect of therapy

% Relief In Symptoms in Group A and Group B(Table no.6)

Symptoms	% Relief	
	Group A	Group B
Redness (<i>lalima</i>)	86.00%	68.52%
Edema (<i>shoth</i>)	74.58%	56.67%

Echymosis (<i>vivarnata</i>)	61.54%	50.00%
Discharge (<i>strava</i>)	78.95%	68.06%
Approximation (<i>vranostha</i>)	100.00%	53.85%
Total sum-reeda score	78.95%	62.87%
Pain-vas scale (<i>vedana</i>)	96.00%	66.67%

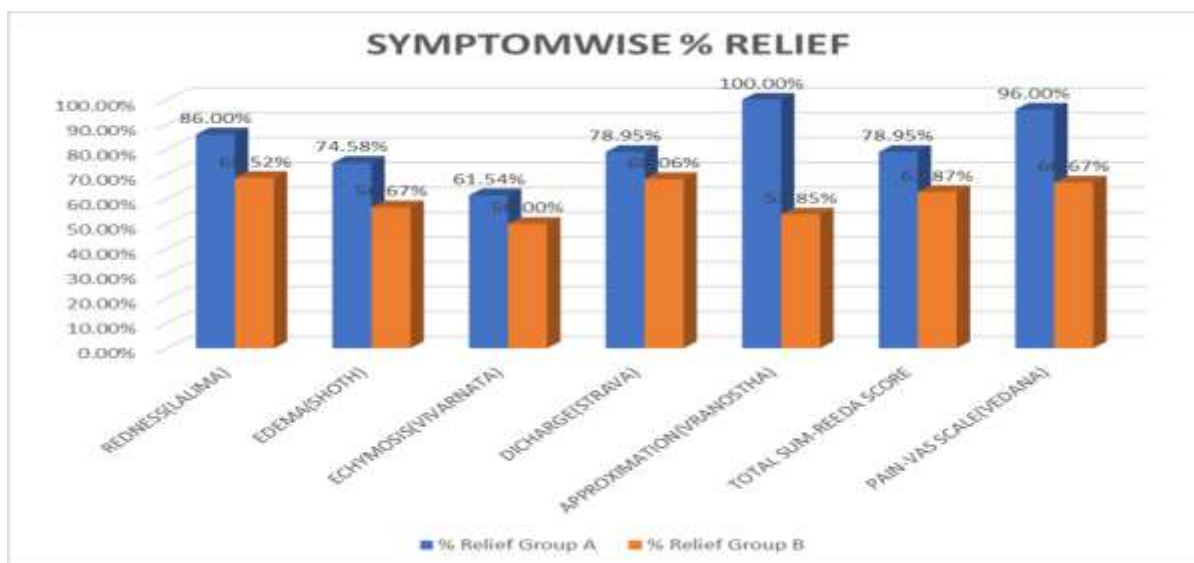


Figure 7-symptomwise % relief

Overall effect of therapy according % Relief(Table no.7)

SR.NO.	CRITERIA	IMPROVEMENT GRADE	NO OF PATIENTS	
			GROUP A	GROUP B
1	0 TO 49%	MILD IMPROVEMENT	3	18
2	50% TO 74%	MODERATE IMPROVEMENT	17	10
3	75% TO 99%	MARKDLY IMPROVEMENT	3	11
4	100%	CURED	27	11
	TOTAL		50	50

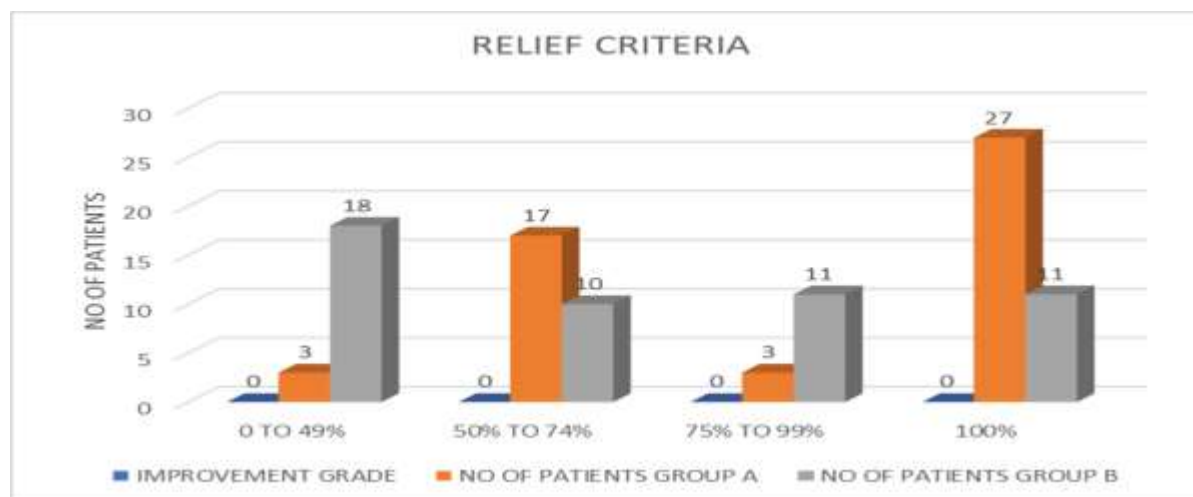


Figure 8 – relief criteria grading

**ACCORDING TO STATISTICAL ANALYSIS:
SUBJECTIVE PARAMETERS (Table no.8)**

Sr. No.	Subjective Parameters	Within Groups (Wilcoxon Rank test)		Comparison (Mann -Whitney’s Test)
		Group A	Group B	
		1	REDNESS(LALIMA)	
2	EDEMA(SHOTH)	Significant	Significant	Insignificant (A ≈ B)
3	ECHYMOSIS(VIVARNATA) DICHARGE(STRAVA)	Significant	Significant	Insignificant (A ≈ B)
4	APPROXIMATION(VRANOSTHA)	Significant	Significant	Insignificant (A ≈ B)
5	TOTAL SUM-REEDA SCORE	Significant	Significant	Insignificant (A ≈ B)
6	REDNESS(LALIMA)	Significant	Significant	Insignificant (A ≈ B)

(≈ - means statistically equal, not exactly equal)

DISCUSSION

Discussion regarding observations and the effect of therapy is presented as follows:

A) Age:-There were a total of 5 patients of the age group between 15 to 20 years, 52 patients of the age group between 21 to 25 years and 36 patients of the age group between 26 to 30 years, and 7 patients of the age group 31 to 35 years were enrolled in this study.

B) Prakruti:-There were total 33 patients of *vata-pittaj prakruti*, 8 patients of *pitta-vataj prakruti*,

26 as of *pitta-kaphaj*, 20 patients as of *kapha-pittaj prakruti*, 7 patients of *vata-kaphaj*, 6 patients of *kapha-vataj prakruti*.

C) Parity:-There were a total of 60 patients who were primipara, 35 were second para, 4 were third para 1 was fourth para.

D) Hb%:-There were a total of 29 patients whose HB% ranges between 9 to 11gms% and 71 patients whose HB% ranges between 11.1 to 14 gm%.

RESULTS

Assessment of symptoms was done by standard methods and the results obtained are as follows:

a) Lalima (redness)

Before treatment, *Lalima*(redness) was present at the episiotomy site in all 50 patients in group A and group B respectively.

After treatment, it was found 86% and 68.52% of patients from group A and group B respectively were not having redness at the episiotomy site.

b) Shoth (edema)

Before treatment, *shoth*(edema) was present at the episiotomy site in all 50 patients in group A and group B respectively.

After treatment, it was found 75.58% and 56.67% of patients from group A and group B respectively were not having edema at the episiotomy site.

c) Vivarnata (ecchymosis)

Before treatment, *Vivarnata*(ecchymosis) was present at the episiotomy site in all 50 patients in group A and group B respectively.

After treatment, it was found 61.54% and 50% of patients from group A and group B respectively were not having ecchymosis at the episiotomy site.

d) Strava (discharge)

Before treatment, *strava* (discharge) was present at the episiotomy site in all 50 patients in group A and group B respectively.

After treatment, it was found 78.95% and 68.06% of patients from group A and group B respectively were not having discharge at the episiotomy site.

e) Vrana osthā (approximation)

Before treatment, *vranaostha* (approximation) was not proper at the episiotomy site in all 50 patients in group A and group B respectively.

After treatment, it was found 100% and 53.85% of patients from group A and group B respectively had approximated wounds at the episiotomy site.

f) Vedana (pain)

Before treatment, *vedana* (pain) was present at the episiotomy site in all 50 patients in group A and group B respectively.

After treatment, it was found 96% and 66.67% of patients from group A and group B respectively were having no pain at the episiotomy site.

CONCLUSION

On the basis of the study, the following conclusions can be drawn:

1) It is concluded from the present study that *Patranga patra kwath yonidhawan* is useful in *Prasavottara yonivrana*. It is found to be very significant in wound healing.

- 2) *Patranga patra kwath Dhawan* significantly reduces pain, and discomfort of episiotomy wounds and thus significantly works on approximation.
- 3) It enhances wound healing with a significant reduction in *strav* (discharge) and *shoth* (edema) from the wound by increasing granulation tissue formation.
- 4) No side effects or intolerance to *Patranga patra kwath yonidhawan* was reported, complained about, or observed by the patient.
- 5) The present study indicates that the treatment is safe, effective, harmless, and comparatively very cost-effective.
- 6) The conclusions drawn from this study are in comparison to control groups as supported by various charts and tables.
- 7) So, from the above results, it can be vividly concluded that *Patranga patra kwath yonidhawan* is as effective as *Triphala kwath yonidhawan* in the healing of *Yoni Vranas* formed during parturition.

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