

Effect of Madhusarpi in the management of Sadyovrana with special reference to post operative wound.

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Abstract

Sadyovrana mostly occurs due to accidental injuries. As we see in today's world the number of major and minor injuries taking place has increased. Surgery and wound go hand in hand; the wound may be due to some kind of trauma or be it by the Surgeon's knife. In today's fast paced life safety is taking a back seat leading to many types of injuries especially common are abrasion and lacerations mostly seen in road traffic accidents. In the present research work Madhusarpi was prepared. 60 diagnosed cases of Sadyovrana were selected from the OPD/IPD of Shalya Tantra Department of Dr. D. Y. Patil College of Ayurveda and Research Centre, Pune. Total patients were divided into two groups. Trial Group A were treated with Madhusarpi, Control Group B was treated with Povidone Iodine (Betadine). Madhusarpi was found equally effective as compared to standardized Povidone Iodine.

Keywords- Sadyovrana, Wound Healing, Madhusarpi

Introduction- Sushruta Samhita has given superior position to Vrana. Sutrasthana of this Samhita shows description of Vrana in most of the chapters and Chikitsa Sthana begins with Chapter for Vrana. 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. Shalyatantra brings out very clearly that vrana is the most significant surgical entity, its knowledge and effective management for a surgeon is the basic skill required. The

main aspect of wound healing is the rate. It must be fast, so that the patient can recover as early as possible. This combination works faster compared to the natural healing or other agents available. Honey has been described to possess the properties of Ropana. In Ayurveda, Acharya Sushruta has given the prime importance to vrana that is wound and its management.

Need of study:

- 1 The need for this study is to find a more safe and effective medicine which would be easily available.
- 2 Also the main purpose is to treat the infected wound, prevent it from Secondary infection.

AIM:

To study the effect of Madhusarpi in Sadyovrana Ropana Chikitsa w.s.r. Post Operative Wound.

Objectives:

- 1 To study Sadyo Vrana in detail.
- 2 To study the properties of Madhusarpi in detail.
- 3 To observe beneficial effects of Madhusarpi in Sadyo Vrana Ropana
- 4 Chikitsa w.s.r post operative wound.

Materials and Methods:

Total 60 patients of Sadyo Vrana were considered for the study which were randomly selected by age and gender. These patients were divided into two groups each group comprising of 30 patients.

Open Trial Group A- 30 patients were treated with Madhusarpi locally for 7 days.

Control Group B- 30 patients were treated with standard method of wound management (Betadine Lotion) and sterile dressing.

Preparation Of Madhusarpi:

The combination of Madhu and Sarpi was used in equal proportion. For the study, Honey available in local market was used which was standardized and authenticated in the laboratory. By using the methods described in Ayurvedic classical text Sarpi (Ghee) was prepared. For making

curd and butter milk of cow is used. By centrifugation butter was isolated from butter milk. By giving heat to the isolated butter it was converted into Ghee.

Method Of Application Of Madhusarpi:

On the first day before application of Madhusarpi on the wound, wound was cleaned with normal saline. According to the reference of Bhavaprakasha Madhu and Sarpi were mixed in equal proportion and applied locally on the wound by soaking the sterile cotton gauze into it. Dressing was done daily.

Povidone Iodine (Betadine)

Generic name- Povidone – iodine

IUPAC name-

2- Pyrrolidione, 1- ethenyl, homopolymer, compound with iodine.

Clinicians have used numerous strategies to combat wound infections, including topical and systemic administration of antibiotics and various antiseptics agents such as hypochlorite and hydrogen peroxide have been placed on wounds to kill bacteria or inhibit their growth. A commonly used antimicrobial agent is Povidone iodine (Betadine), a complex of iodine, the bactericidal component, with polyvinylpyrrolidone (Povidone), a synthetic polymer. The most common commercial form is a 10% solution in water yielding 1% available iodine.

Assessment Criteria:

1. Pain
2. Burning
3. Swelling
4. Length of the wound (in cm)

Unit healing time:

Rate of Healing= Greatest average wound margin distance from centre divided by time taken for complete closure of the wound

5. Discharge

Duration Of The Study:

It was depended on rate of healing.

Follow Up Study:

Follow up was taken every alternate day.

Laboratory Investigations:

Hb%, ESR, BSL, BT-CT, HIV, HbsAg.

Observations and Results:

The sex incidence shows that maximum patients were female (33 cases- 55%) and minimum were males (27 cases- 45%)

Considering the age group- patients belonging to the age group of 20-30yrs were 21 (35%), 31-40 yrs were 26 (44%), 41-50yrs were 10 (16%) and 51-60yrs were 3 (5%).

In relation to the nature of the diet more patient were found in mixed dietary group 31 cases (51.66%)

Statistical test comparison of groups according to the effect of pain-

No Pain	Trial Group A	Control Group B
Day 3	0	0
Day 5	11	17
Day 7	12	8

Chi Square Value	0.5711
Df	2
Sign	Insignificant

Statistical test comparison of groups according to the effect of swelling-

No Shotha	Trial Group A	Control Group B
Day 3	0	0
Day 5	2	6
Day 7	20	20

Chi Square Value	0.6417
Df	2
Sign	Insignificant

Statistical test comparison of groups according to the effect of burning-

No Burning	Trial Group A	Control Group B
Day 3	0	0
Day 5	6	9
Day 7	16	16

Chi Square Value	0.9381
Df	2
Sign	Insignificant

Statistical test comparison of groups according to the effect of length of wound-

t test for decrease in area from 0 to 3 days in both the groups

Group	N	Mean of diff.	Std. Dev	SEM
Trial group A	30	-0.6333	0.354	0.1349
Control group B	30	-0.5500	1.767	0.1135

t test for decrease in area from 3 to 7 days in both the groups

Group	N	Mean of diff.	Std. Dev	SEM
Trial group A	30	-1.500	0.2274	0.09243
Control group B	30	-1.433	1.7677	0.09489

t test for decrease in area from 0 to 7 days in both the groups

Group	N	Mean of diff.	Std. Dev	SEM
Trial group A	30	-2.133	0.2274	0.1141
Control group B	30	-1.983	0.1642	0.0916

$P < 0.0001$: P value less than 0.0001 will be considered to be significant.

Discussion:

Clinical findings like pain, burning, swelling and discharge were observed during primary and successive application of Betadine and Madhusarpi in Control and Trial Group respectively. The severity of pain and inflammatory conditions were same in both the groups. The Unit Healing Time was less in Trial group as compared to Control group.

Honey is Madhura by rasa, kashaya by anurasa, ruksha, sheeta virya and good for normal complexion, causes cleaning and healing of the wound. It penetrates deep in the tissue.

Mode of Action:

Pitta gets aggravated in traumatic wounds. It causes increase in local Ushma. This Ushma causes local burning as well as Shophya. Being sheeta Virya Ghrita acts as Pittashamana. Local Vata gets aggravated due to loss of dhatu. It results in pain. Ghrita being of snigdha property acts as Vatashamaka. Thus, Ghrita being Pitta- Anitharam alleviates both Vata and Pitta. Because of this counter actions pain as well as shophya immediately subsides. Ghrita by its Agnideepaka property causes improvement in local dhatwagni. This increases rapid replacement of local dhatu which in turn results in rapid healing. It also aids healing by its Shodhana and Ropana properties. In case of wounds it can be correlated to the toxins liberated by infecting micro organisms at wound site. These toxins are neutralized by the Vishahara action of Ghrita.

Conclusion

Both the ingredients are easily available and are cost effective as compared to other products that can be used for the management of wounds. Therefore, the drug is useful for quality healing and fast healing of the wound.

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