

## A CLINICAL STUDY OF AYURVEDIC OINTMENT IN THE MANAGEMENT OF ENDOGENOUS WOUND OF CATTLE

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### ABSTRACT

The wound is considered the core problem of Surgery. *Vata,Pitta* and *Kapha* are aggravated by using their respective causative factors that presents and develop the Endogenous Wound. Endogenous Wound are often encountered problem in present generation produced usually by way of the morbid *doshas* of the body. In the existing look at,*Haridradi*(ointment)is decided on which is cited via Acharya Sushruta in the context of Ulcer. These ten components possess the properties of each cleansing and healing. It topically apply once a day on the persistent wounds for 30 days or till the healing of the wound, whichever is earlier. It's a single-blind clinical study in which 20 cattle were selected and divided into two groups 10 cattle in each. Experimental group cattles wounds were treated with a dressing having *Haridradi* ointment and manage organization cattles wounds had been handled with framycetin ointment and dry gauze bandaging. It reduces pain, burning sensation, itching, decreases discharge, oedema and facilitates in gradual development in ground and granulation tissues as compared to control group. Endogenous Wound control with Ayurvedic treatments is one of the principal regions of studies, hence it may be speculated that *Haridradi* ointment possesses sufficient efficacy in cleansing and restoration of the wound without developing any negative effect.

**Aims and Objective:**To assess the efficacy of Ayurvedic ointment in the management of endogenous wound of cattle.

**Materials and methods:** The ointment ingredients and preparation as per the Ayurvedic scripture and the sign and symptoms of the endogenous wound comprises from the Ayurvedic and Modern text books. The research subject(Cattle) is from the farm of Pandey Dairy, Raipur, Chhattisgarh.

**Results:** The application of *Haridradi* ointment i.e., ointment in Endogenous wound reduces odour, infection, tenderness,discharge,length-form,color and itching drastically and promotes for the healing of Endogenous Wound.

**Conclusion:** From the present clinical study it can be speculated that *Haridradi* Ointment possess sufficient efficacy in wound cleaning and healing without producing any adverse effects

**Keywords:** Ayurvedic Ointment, Endogenous Wound, *Haridradi* ointment,*Vata*, *Pitta*, *Kapha*.

**INTRODUCTION:** In the current era scientific technology and biotechnology up gradation are ongoing process; it will make

contributions toward new research. Ever considering that till the origin of cattle life been prone to injury, which made them

assume approximately recovery from a totally early level of development. In Ayurveda, specifically Acharya Sushruta has cited various kinds of *Vrana*<sup>1</sup>, and their management<sup>2</sup> which is of the high importance of any surgical exercise or manner. In the latest past outstanding development of surgical operation in various fields has immensely decreased the incidence of wound contamination with the aid of lowering the impediments related to wound healing to a certain limit, still wound control. Keeps to be a problem of hypothesis. After the injury, healing is a natural phenomenon that keeps in a sequential way till the formation of a healthful scar. Usually, nature takes complete care in the course of restoration. The protection mechanism of the body like phagocytosis and its nearby enzymatic motion on dead tissue assist to preserve a wound smooth, but at instances whilst the infection is the huge floor area of the wound could be very huge and slough or narcotic tissue is too much, this auto cleaning mechanism will become insufficient<sup>3</sup>. Acharya Sushruta was clearly mentioned this on his Samhitas on various parameters of *Vrana Chikitsa*. For the control of Endogenous Wound, he integrated a number of drugs widely categorized into cleansing and recovery of the wound. The procedure i.e., cleaning and recovery have been therapeutically grouped below seven headings *Kashaya, Varti, Kalka, Sarpi, Taila, Rasakriya and Avachoorna*<sup>4</sup>. It is a need of an hour to find out a rotational and optimal healing compound for the wound management in a higher manner, subsequently it is important to locate out a single and effective formulation that possesses both cleansing and recovery proper-

ties. *Kasis, Kutaki, Jati, Haridra, Tagar, Agar u, Daruharidra, Deodaru, Priyangu and Lodhra* are the ten drugs selected from *Sushrut Samhita*.<sup>5</sup> These ten drugs having the properties of *Vrana Shuddhi* (Purification) and *Ropana* (Healing) These drugs were processed and prepared in the form of *taila*<sup>6</sup>. Then *taila* mixed with beeswax (*sikth*) to make an ointment. Even though the description of those drugs is to be had at numerous locations in *Ayurvedic Samhitas* an effort is made to know the efficacy of those drugs in combination for the management of endogenous wounds.

### AIMS AND OBJECTIVES

To assess the efficacy of Ayurvedic ointment in the management of endogenous wound of cattle.

### MATERIALS AND METHODS

The material for the study was provided by Ayurvedic as well as modern surgical classical texts (Specially Sushruta Samhitas). The work was carried out in the cattle farm of Pandey Dairy at Raipur. The drug contents are available in Ayurveda the drug having the properties of *Kashaya, Tiktarasa* have been said for wound cleaning and the drugs having the properties of *madhur, kashaya rasa* have been stated for wound healing. The drugs which have been selected for wound healing in the present study is described by Acharya Sushruta. It has the properties of both wound cleaning and wound healing.

### Methods for Preparation of Drugs

*Haridradi* Ointment was prepared in Kamdhenu Panchagavya Research and Extension Centre, DSVC Kamdhenu University, Durg. The above mentioned drugs were taken in equal quantity. *Haridra, Jati and Priyangu* were taken in Kalka form, fine powder of *Kasis and Kwatha* was pre-

pared of remaining components. The *Siddha Taila* was taken four times to the total ten components. The *Siddha Taila* was prepared by standard method. In this preparation liquid wax in 1/4 proportion to the oil and mixed gently in oil. The prepared ointment was sterilized before the application.

### Clinical Study

**Source of Data-** The cattle were selected from the farm of the Pandey Dairy, Raipur, Chhattisgarh.

**Methods of collection of data-**The total 20 Cattles have been studied in two groups.

**Group A-** application of *Haridradi* ointment-experimental group

**Group B-**application of framycetin ointment-controlled group

**Intervention:** The endogenous wound carried with the any type of contamination or foreign substances had been removed and wound changed into cleaned with distilled water. After irrigation of wound *Haridradi* ointment on sterile gauze become carried out on the site of wound and bandage done.

**Length of Study:** 30 days

**Inclusion criteria:** All types of endogenous wound(it is comprises with sign and symptoms of *Nija Vrana*(Vitiation of

*doshas* singly or in combination leads to formation of *Nija Vrana* and it does not require any type of external factors) with minimum history of two weeks irrespective of age, sex selected randomly.

**Exclusion criteria:** Cattles having complication of wounds like fibrosis, tetanus, cellulitis, erysipelas, gangrene, actinomycosis and also malignant, leprotic, varicose, tropical, and poisonous wounds had been now not covered.

### Criteria of Assessments :

For observation and statistical analysis cattles response was assessed based on subjective and objective parameters. The subjective parameters of odor (smell), tenderness, discharge, pain, colour, inflammation, size and shape and itching were recorded on the basis of score adopted with grading (0, 1, 2, & 3). After completion of treatment assessment of scar was done on the basis of gradation (0, 1, 2, & 3).

### OBSERVATION AND RESULTS

The present take a look at discovered that incidence of endogenous wound was extra common in age organization 5 to 15 years were extra common in numbers i. e., 52.5% followed by 5 to 15 years 25%. In sex wise distribution most cattle have been male 60%.

**Table 1. Effect of Therapy on Different Sign & Symptoms in Cattle of Group A**

Symptoms	Mean Score		% of Relief	SD	SE	T	P
	BT	AT					
Odour	2.0	0.2	90	1.317	0.416	4.323	=0.02
Tenderness	2.5	0.4	84	0.568	0.180	11.699	=< 0.001
Discharge	1.7	0.4	76.47	0.675	0.213	6.091	=< 0.001
Pain	3.1	0.4	87.09	0.675	0.213	12.650	=< 0.001
Colour	1.8	0.0	100	0.422	0.133	13.500	=< 0.001
Inflammation	2.3	2.0	91.30	1.197	0.379	5.547	=< 0.001
Size & Shape	1.8	0.0	100	0.632	0.200	9.000	=< 0.001
Itching	1.7	0.1	94.11	1.578	0.499	3.207	=0.011

**Table 2. Effect of Therapy on Different Sign & Symptoms in Cattle of Group B**

Symptoms	Mean Score		% of Relief	SD	SE	T	P
	BT	AT					
Odour	1.1	0.0	100	1.370	0.433	2.538	=0.032
Tenderness	2.5	0.2	92.0	0.483	0.152	15.057	=< 0.001
Discharge	2.2	0.0	100	0.632	0.200	11.000	=< 0.001
Pain	2.9	0.0	100	0.738	0.233	12.429	=< 0.001
Colour	1.8	0.0	100	0.919	0.291	6.194	=< 0.001
Inflammation	2.4	0.0	100	0.699	0.221	10.854	=< 0.001
Size & Shape	1.5	0.0	100	0.707	0.224	6.708	=< 0.001
Itching	2.1	0.0	100	1.197	0.379	5.547	=< 0.001

**Table 3. Showing Effect of Therapy on size and shape by paired t-Test in both group of Endogenous wound.**

S.N	Parameters	Group	Mean ± SD		Mean Difference	SED	t	P
			BT	AT				
1	Length	Group A	3.025±1.76	0.625±0.87	2.4±1.836	0.409	5.867	P<0.001
		Group B	2.65±1.565	0.912±1.098	1.737±0.908	0.203	8.556	P<0.001
2	Breadth	Group A	2.1±1.35	0.3875±0.6411	1.7125±1.507	0.337	5.081	P<0.001
		Group B	1.675±1.195	0.525±0.589	1.15±0.824	0.184	6.25	
3	Depth	Group A	0.8425±0.742	0.125±0.275	0.742±0.646	0.148	5.013	P<0.001
		Group B	0.567±0.659	0.187±0.291	0.38±0.458	0.102	3.725	P<0.01

**DISCUSSION:** Wound healing is a ordinary physiological process which out-sets without delay after damage and continues on in sequential way till the formation of healthy scar. *Taila* application is one which may want to be adopted whilst wounds have raised granulation<sup>7</sup>. Endogenous wound through *Samhita* is focused in accordance with the contemporary surgical description. *Haridradi taila* (ointment) *Kalpana* has narrated through *Acharya Sushruta* along with other various modalities for clinical trials. The local application of *Haridradi* ointment in endogenous wounds reduces the odour, infection, tenderness, discharge,

size& form, coloration and itching substantially and promotes for recuperation of endogenous wounds. *Acharya Sushruta* defined *taila Kalpana in Shashtiupakrama*. Ten ingredients having the properties of each "*Shodhanandropan*" (mentioned by *Acharya Shushruta*). Those are *Kasis, Kutaki, Jati, Haridra, Tagar, Agaru, Daruharidra, Deodaru, Priyangu and Lodhra* all the point out drug possesses wound cleaning property. As wound becomes clean healing technique can be augmented for smooth and uncomplicated recovery. Those drugs additionally possessed wound healing property. *Kashay*

and *Tikta Rasa* as noted in *Kaidev Nighantu* have *Kapha* and *PittaShamak*(It pacifies the *pitta dosha* and provides relief from unusual heat feeling in the body) property<sup>8</sup>. Ointment is to be prepared because convenient to carry than *Taila* and using for long time in wound.

#### Mode of Action of Drugs

On the basis of above description and medical findings in all likely hood mode of action *HaridradiTaila*(ointment) on endogenous wound can be hypothetically postulate. Considering all the homes of compound drug i. e., *Haridradi* ointment its *KashayaTikta Rasa* checks the immoderate reactionary inflammation in earlier section (*Pitta-Kaphaghna*),squeezes out pollution and necrotic tissue thus checks excessive exudation (*Kleda-Puya-Shieshma-Shoshan*)and as a result facilitates wound healing. Its *Katu Rasa* reduces neighborhood discharge, infection acts as a anti-infective by its channels purification property, *UshnaVirya,Laghu-Ruksha-Tikshna Guna* it penetrates in deep tissue and debride the wound. *MadhurVipaka and Snigdha Guna* help in elimination of any debris left. It additionally helps in increase of destroyer wounds site, *Jeevaniya,Bruhaniya and Preenan* property and this facilitate healing by regeneration and organization of numerous tissue<sup>9</sup>.

**CONCLUSION:** The current study entitled " A clinical study of Ayurvedic ointment in the management of of endogenous wound of cattle" was disposed into diverse sections like observations, evaluation and effects can be concluded as follows. According to *Acharya Sushruta Saptashodhan and Saptaropanwas* described for the remedy of wound. Amongst 10 *Dravyas*,

three *Dravya* act as wound cleaner and ultimate had been acts as wound healer. The drug to start with acts as a debriding agent-removing slough and necrotic tissues and subsequently paves way for easy and uninterrupted recuperation of the wound. The local application of *Haridradi* ointment i.e., ointment in endogenous wound reduces odour, infection, tenderness, discharge, length form,color and itching drastically and promotes for the healing of endogenous wound. The dressing of *Haridradi* ointment affords moist surroundings that enhances epithelialization prevent scab formation and can be without difficulty removed from wound surface without inflicting ache or harm to the brand new developing epithelium.From the present clinical study it can be speculated that *Haridradi* Ointment posses sufficient efficacy in wound cleaning and healing without producing any adverse effects.

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