

AYURVEDIC MANAGEMENT OF DAGDHA VRANA WITH RESPECT TO BURNS, A SINGLE CASE REPORT

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ABSTRACT: Burn is defined as the coagulative necrosis of tissue and loss of continuity of the surface epithelium due to fire. In burn wound there is more secretion of serum and after healing, there is more chance of thick scar formation and contracture formation. Though various treatment modalities are used for dressing of burn wounds; still there are chances of more secretion of serum, contracture formation and slow healing. Whereas in Ayurveda, there is a variety of burn wound healing agents. One of them is Shatadhouta ghritha. A 13-year-old male patient came with 3.25% burn present on the left lower limb was treated with application Shatadhouta ghritha dressing externally (for 10 days) and tab zerodol sp 1/2 orally (two times a day for 3 days), tab zifi 200 mg orally (two times a day) for 3 days. At the end of the 2nd week the wound healed completely, leaving only a minimal scar and no contracture. Observations showed that less secretion of serum, less scar formation and good healing is possible with local application of Shatadhouta ghritha.

Key Words: Burn, wound, scar, contracture, shatadhouta ghritha.

INTRODUCTION

The cow ghee is commonly used in India for the treatment of burns and wounds. The ghee based formulation were useful for wounds, painful ulcers, insect bite wounds, herpes, leprosy, wounds caused by heat or fire and deep wounds by external application as per the classical texts of Ayurveda¹.

Burn is defined as the coagulative necrosis of tissue and loss of continuity of the surface epithelium due to fire. A burn is damage to body's tissues caused by heat, chemicals, electricity, sunlight, or radiation. Scalds from hot liquids and steam, building fires and flammable liquids and gases are the most common causes of burns².

Burns can cause swelling, blistering, scarring and, in serious cases, shock, and even death. There are four types of burns that are First-degree burns, damage only the outer layer of skin. Second-degree burns, damage the outer layer and the layer underneath. Third-degree burns, damage or destroy the deepest layer of skin and tissues underneath. They can also lead to infections because they damage the skin's protective barrier. Treatment for burns depends on the cause of the burn, how deep it is, and how much of the body it covers³.

Antibiotic creams can prevent or treat infections. For more serious burns, treatment may be needed to clean the wound, replace the skin, and make sure the patient has enough fluids and nutrition. In modern system of medicine the proper initial care of burn wounds will definitely prevented by the use of oral and systemic Antibiotics. After use of antibiotic persistent serum secretion is one chief complaint and which may leads to contracture formation.

In Sushruta Samhita agni karma is used to treat the diseases, but careless use of Agni karma lead to three types of iatrogenic burn namely-plusth dagdh, durdagdh and atidagdh. Durdagdh symptom is same as second degree of burn like as blister formation. In Charak samhita shatadhouta ghritha is mentioned for agnidagadh chikitsa⁴.

Case Report:

A 13-year-old male patient presented with burn wound that involved medial side of left lower limb. He came with the H/O of burn by marking nut oil with c/o of burning sensation, pain, discharge on a large burnt wound area. (acc to the rule of 9) On examination about 3.25% burn was present on the left lower limb. There was foul smell, discharge. Due to burn the skin became black, multiple blisters formed. The patient had no systemic disease. He came for the first time for treatment of burn. And the patient was treated on OPD basis.

Personal History

Bowel: Regular

Appetite: Good

Micturition: Regular

Sleep: Disturbed

Family History

Nothing significant

Physical Examination:

P.R: 80b/min

Temp: 98.6⁰ f

Systemic Examination:

CVS: S₁S₂ heard

CNS: NAD

RS: BLAE clear

Specific Examination:

Number of wounds: Single

Position: over left lower limb

Site : Medial side just above medial malleolus

Size: Approx 7×5cms

Shape: Irregular

Surrounding skin: Reddish pink discoloration with small reddish eruptions

Color: blackish discoloration

Smell; foul smelling

Discharge: Minimal watery discharge

Clinical Diagnosis: Dagdha vrana

Treatment given:

Every morning the burn wound is washed with normal saline and dried with sterile gauze.

Prepared Shatadhouta ghrita was applied over the burn wound. Along with the local wound treatment, the following drugs were given orally for pain relieving.

Tab zifi 200mg 1bd for 3 days. A/F

Tab zerodol sp ½ bd for 3 days. A/F

Tab pan 20 1od for 3 days B/F

On fourth day started with the Ayurvedic oral medications

Tab Kamadhudha ras 1tid for 10 days. B/F

Tab Gandhaka rasayana 1 bid for 10 days. A/F

Tab Triphala guggulu 1bid for 10 days. A/F



SYMPTOMS	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
PAIN	Severe	++	++	+	+	-	-	-

BURNING SENSATION	Severe	++	+	+	-	-	-	-
FOUL SMELL	Foul smelling	++	+	+	-	-	-	-
DISCHARGE	Present	++	+	++	+	-	-	-

DISCOLORATION	Blackish & reddish surrounding skin	+++	+++	+++	Pinkish surrounding skin	+	-	-
BLISTER	Single blister	+++	+++	++	++	++	+	-

Discussion

Wound healing is a process by which damaged tissue is restored as closely as possible to its normal state. Wound contraction is the process of shrinkage of area of the wound. Wound-healing process consists of four highly integrated and overlapping phases: hemostasis, inflammation, proliferation and tissue remodeling or resolution. Many factors including the health of the affected tissue have important influence over wound healing⁵. If a drug is effective in promoting wound healing it may be acting at different aspects of wound.

Ghrita have Preenana (contentment) property because of which, they cause Dhatu Vardhana (increasing body tissue).

As the drug has Snigdha Guna (Unctuous property), it helps to pacify Vata, which vitiates very quickly in Sadyo Vrana (Acute wound). Due to its Sheeta Guna (cooling), it helps in normalizing vitiated Pitta, thus helps in pacifying Daha (burning sensation) property.

As the drug helps in Poshana (nourishment); leads to healthy scar formation and due to its Twakvarna prasada (improves skin health) property and causes Savarnikarana (natural skin complexion). Processing Ghee for 100 times with water impregnate qualities of Jala Mahabhuta, through which cooling effect can be expected. This also helps in reducing burning sensation⁶.

Shatadhauta Ghrita is a water and oil emulsion and so is better absorbed through the skin. It acts mainly by maintaining better hydration of the skin and gives moist environment for wound healing which is more beneficial. The dressings are based on the concept of creating an optimum environment to allow epithelial cells to move unimpeded, for the treatment of wounds⁷. Such optimum conditions include a moist environment around the wound, effective oxygen circulation to aid regenerating cells and tissues and a low bacterial load. Oxygen is a prerequisite for successful wound healing because of increase demand during reparative processes like cell proliferation, angiogenesis, collagen synthesis and bacterial defence⁸.

Gandhaka rasayana is a classical ayurvedic formulation which maintain vata, pitta, & kapha it is having antibacterial, antiviral, anti-inflammatory, demulcent, & antipruritic. Which provides healing effect in various conditions⁹.

Triphala guggulu has a combined effect of triphala and guggulu. It brings detoxifying and laxative properties while guggulu provides anti-inflammatory properties. It also helps to reduce the pain, swelling¹⁰.

Kamadhudha ras is a herbo-mineral preparation which has sheeta virya an useful in pittaja rogas. It reduces heat in the body & alleviates burning sensation. It reduces the inflammation¹¹.

At the time of presentation, the patient had 3.25% 2nd degree burn, blackish colour and multiple blisters on skin. It was completely healed in 10 days. There were no adverse events throughout the management and healing occurred uneventfully. It shows that the Shatadhouta ghrita is very useful in the treatment of burn case as a dressing agent.

CONCLUSION

After use of Shatadhouta ghrita locally the a superficial large burn wound was healed in 15 days without any post burn hypertrophy and post burn contracture. More cases need to be studied to confirm its mode of action.

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