

Case Study

# AYURVEDIC MANAGEMENT OF PRESSURE SORE WITH MADHUKADI YOGA – CASE STUDY

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#### **Abstract**

Pressure sores are also known as Decubitus ulcers. It is a localized damaged to the skin and/or underlying tissues. It occurs over a bony prominence due to constant pressure, or pressure in combination with shear and/or friction. People who are used to spend a long time in one position can be affected with pressure sores. Any part of the body can be affected with the sores. Specially the bony areas around hips, coccyx, elbow are more susceptible. In classics Sushruta has explained details of Vrana and its management by many different formulations like Jatyadi Taila, Panchvalkal Kwatha, Yastimadhu, Madhukadi Yoga and other Ropak Ghrita. This formulation has potential wound healing properties. In this study we have treated one paralyzed female patient from Panchkarma department. Patient was suffering from pressure sore since many days. We had locally applied Madhukadi Yoga to the patient once a day for 20 days. Pressure sore was completely healed within 20 days in this patient. This case study suggested that application of Madhukadi yoga is carrying out good results in patients of Pressure sores.

**Key words:** Pressure sores; Madhukadi Yoga; Bed sores; Trophic ulcers; Wound management.

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#### INTRODUCTION

When the blood supply is cut off for more than two to three hours a sore area of skin develops due to pressure on it and lack of movement. It is first appears as a red painful area, which in time turns purple. Gradually the skin can break open and become infected and then a pressure sore can become deep (ulcerate) and extend into the underlying muscle. It is very slow to heal. Left Untreated pressure sores can become gangrenous or seriously infected. Pressure sores are also called bed sores or decubitus ulcers because they are a major problem for patients who are confined to bed and are unable to move themselves. Here "pressure sore" is a better general term because it also develops in someone who is confined to a wheelchair and whose movements are restricted for a long time or who wears a cast.[1] There are four stages of Pressure sore, first stage is the mildest stage. In this stage the upper layer of the skin is only affected. Patient will feel Pain, burning, or itching at site of sore. Sore site may different from the surrounding skin i.e. firmer or softer, warmer or cooler. In the second stage when the sore digs deeper below the surface of the skin the skin may get broken, leaves an open wound, or looks like a pus-filled blister. Sore area is swollen, warm, and/or red. During the third stage the sore may ooze clear fluid or pus with severe pain. In this stage sores will affect the second layer of skin and it will be gone through the fat tissue. The sore looks like a crater and may have a bad odor. In this stage one can get the sign of infections like, red edges, pus, odor, heat, and/or drainage. The tissue in or around the sore is black if it has died. Gradually if reaches up to the fourth stage. The sores are the most serious and in the fourth stage. Sometimes the muscles and ligaments of the patients may also affect with it. In this stage sore is deep and big. Skin will turn black and shows signs of infection like, red edges, pus, odor, heat, and/or drainage. One may be able to see tendons, muscles, and bone. [2] After these four main stages, there are 2 others. One is

"Unstageable" is when the one can't see the bottom of the sore, so anybody can't say how deep it is. Another one is "Suspected Deep Tissue Injury" (SDTI). This is when the surface of the skin looks like a Stage 1 or 2 sore, but underneath the surface it's a Stage 3 or 4. [3] Avurveda gives more importance preventive measures and complete curing of a disease with a minimum chance of recurrence. Madhukadi Yoga (Madhu, Ghrita, Til Kalka, Nimba Patra Swarasa)<sup>[4]</sup> is a known Vrana Ropana formulation. [5] Hence considering the wound healing activity the drug it has been tried in this case and found effective in Pressure sores.

#### AIMS AND OBJECTIVES

To evaluate the efficacy of Ayurvedic treatment i.e. Madhukadi yoga in the management of pressure sores.

### **CASE REPORT**

A 61 years old female patient suffering from pakshaghat (hemiplegia), was admitted for treatment of niruha basti in panchakarma department. This patient was suffering from pressure sore stage 2 since many days. She had tried different local application for healing of wound yet she was not getting relief.

During examination the skin was open and shown signs of some tissue death around the wound. The ulcer was shallow with a red-pink wound bed. There was a blister filled with fluid. There was severe pain and tenderness over ulcer and periphery area. The diagnosis was made as Decubitus ulcer.

## MATERIAL AND METHODS

## **Patients**

In this study 61 years old paralyzed female patient from IPD of panchakarma department was registered.



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## Drug

Madhukadi yoga

Goghrita (ghee) - 1 part Madhu (honey) - 1 part Krishna tila bija powder (black sesame seed powder) - 1 part Nimba Patra swarasa (leaves juice of *Azadiracta indica*) - 1 part

Madhukadi Yoga is a combination of Madhu, Ghrita, Nimbapatra Swaras and Tila kalka. All above mentioned drug were taken in equal quantities (1 Part) and mixed well and made a paste form. Fresh paste was prepared every day before using in ulcer.

#### **METHODOLOGY**

Ulcers were cleaned daily with Panchwalkala Kwatha [bark decoction of Nyagrodha (Ficus bengaenesis Linn.), Udumbara glomerata Roxb.), Ashvatha (Ficus religiosa Linn.). Parisha (Thespesia populanea), Plaksha (Ficus lacor Buch-Ham)]. After cleaning of ulcer, Madhukadi Yoga was applied and covered with sterile gauze pieces and bandaged daily once in the morning hours. The assessment of ulcer was done on the basis of relief in symptoms i.e. pain, tenderness, size of wound and discharge.

#### Assessment of wound

Assessment of wound was done by observing the relief in sign and symptoms and decreasing size of wound day by day. (Figure 1 to Figure 4)

## **RESULTS**

The patient came with skin blisters and stage 2 of Decubitus ulcer. (Figure 1) After application of Madhukadi yoga wound became clean within 4 days. (Figure 2)

All sign and symptoms were decreased within 10 days after treatment. Ulcer was nearer to heal within 15 days. (Figure 3) Complete healing was achieved by 20 days of treatment with minimal scar. (Figure 4)

## **DISCUSSION**

Treatment of Pressure sores will depend on the stage of your ulcer. The first and most important thing to do with any pressure sore is to stop the pressure. Change your position or use foam pads, pillows, or mattresses. If Patient spends a lot of time in bed, try to move at least once every 2 hours. If you're sitting, move every 15 minutes. Patient should be advised to eat a diet high in protein, vitamins A and C, and the minerals iron and zinc also, drink plenty of water. [6] Treatment can include medications, therapies, or surgery. A process to remove dead tissue called debridement is an option for cleaning your wound. Keeping the site clean and free of debris is important to promote healing.<sup>[7]</sup> Healing is a natural process, it is inhibited by various factors. Wound healing process starts from the moment of tissue injury and can be continued for varying periods depending upon the extent of wounding.<sup>[8]</sup> The process of wound healing is broadly categorised in 3 phases. Phase of inflammation, phase of proliferation (granulation tissue formation), phase of differentiation (scar tissue formation). [9] The objective in wound healing management is to establish healing in the shortest possible time, with minimal pain, discomfort and scarring. Improving the process of wound healing and tissue repair offers tremendous opportunities to enhance the quality of life for trauma and burns patients.

In this study Panchavalkala Kwatha was used for Prakshalan (irrigation over wound). Panchavalkala kwatha has played important role in maintaining local hygiene, shodhana (cleaning) as well as ropana (healing) of the Pressure sore.





Panchavalkala has the properties of kaphavata hara and also varnya and vrana ropana, shodhaka properties administering these drugs in the form of Kashaya it clears the ducts and also does the varna prasadana The Panchavalkala Kwatha has antimicrobial activities. The pressure sore repeatedly cleaned with was freshly prepared Panchavalkala kwatha. Though the pressure sore is more prone to get infected by stage 2, but in this case sore was healed without any complications. [10][11]

Madhu (Honey) has properties of Madhura, Kashaya Rasa and Pichhila, Sheeta, Laghu Guna. Madhu is having vrana ropan effect. Kashaya Rasa removes foul smell from wounds by destroying the bacteria which produce ammonia and cleanse the wound surface. Honey exerts direct nutrient effect on regeneration of tissue due to madhura rasa because it contains a wide range of amino acids, vitamins, and trace elements in addition to large quantities of readily assimilable sugars. Sheeta Guna of honey will promote healing by reducing pain and inflammation with anti-inflammatory action.

Pichhila Guna acts as moist retentive as moist wound environment is less painful, requires fewer dressing changes, and produces better cosmetic results.<sup>[12]</sup>

Tila Kalka is soothing and instant pain relieving since it pacifies vata. Seasemol a chemical present in tila has a phenol ring and acts as an anti inflammatory drug. [13]

Neem leaves can purify the blood, prevent damage caused by free radicals in the body, remove toxins, and treat insect bites and ulcers. Neem leaves have anti-bacterial properties which is why it works wonders on infections, burns and any kind of skin problems. It destroys the bacteria that causes infections, stimulates the immune system and encourages rapid healing.<sup>[14]</sup>

Cow's ghee has been reported to exert significant wound healing activity. Its antifungal activity has also been shown to be independent of any antibiotic or antifungal agent, which may be included into the formulation. In the present case all antibiotics were discontinued and the formulation



contained only cow's ghee as an active component. Cow's ghee has been reported to exhibit antiulcer activity and also effective against infection in the eyes. Ghee contains several saturated and unsaturated fatty acids which are capable of taking part in metabolic processes involved in healing of any wound. It seems therefore worthwhile that the cow's ghee is explored further as an effective clinical agent. [15]

#### **CONCLUSION**

This case study highlighted the topical application of Madhukadi yoga following Panchavalkala prakshalana is having very good results in healing in a case of Pressure sores that is originated from long term bed ridden position in specially the patient who are suffering from paralysis. There is not any side effect found during treatment. So this study needs further more data.

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