

**MANAGEMENT OF PRESSURE ULCER WITH AYURVEDIC  
MEDICINE: CASE STUDY****Nibedita Sarkar<sup>1\*</sup> and Shyamanta Kalita<sup>2</sup>**<sup>1</sup>PG T, Dept. of Kayachikitsa, Govt. Ayurvedic College and Hospital Guwahati Assam.<sup>2</sup>Assistant Professor Dept. of Kayachikitsa, Govt. Ayurvedic College and Hospital Guwahati Assam.Article Received on  
19 August 2022,Revised on 09 Sept. 2022,  
Accepted on 29 Sept. 2022

DOI: 10.20959/wjpr202213-25746

**\*Corresponding Author****Dr. Nibedita Sarkar**PG T, Dept. of Kayachikitsa,  
Govt. Ayurvedic College and  
Hospital Guwahati Assam.**ABSTRACT**

Pressure ulcer is a type of wound due to break down of skin and underlying tissue when an area of skin is placed under constant pressure for certain period of time. It is also known as decubitus ulcer and which is commonly known as bedsores. In Ayurveda pressure ulcer is compared with *dusta vrana*. A single case study was done in Govt Ayurvedic College and Hospital Jalukbari Guwahati Assam of Kayachikitsa Dept. The patient who have history of spinal injury having Para- paresis since 12 month along with a pressure ulcer over Lumbosacral region. Regular cleaning and washing is done with

Agavadhadi Kashaya and as a ointment mixture of Jatyadi taila and Yasad bhasma. After 45 days of dressing the wound was completely healed up. The study showed good result of Ayurvedic management of bedsore and efficacy of Ayurvedic medicine in healing.

**KEYWORDS:-** *Pressure ulcer, Decubitus ulcer, Dusta vrana.***INTRODUCTION**

Pressure ulcers are a type of injury that breaks down the skin and underlying tissue when an area of skin is placed under constant pressure for certain period causing tissue ischaemia, cessation of nutrition and oxygen supply to the tissues and eventually tissue necrosis. Constant pressure resulting in 'distortion or deformation damage' is probably the most accurate description of a pressure ulcer.<sup>[1]</sup> There is a localised, acute ischaemic damage to any tissue caused by the application of external force (either shear, compression or a combination of the two).

"Pressure sores" is the term used commonly in the UK but again pressure injuries that are not open wounds (Such as blisters and non blanching erythema) are not true sores, but only "pressure damage" and still belong to this family of pressure ulcers. "Pressure ulcers" is a term used widely in the USA and other countries and has been accepted as the Europe-wide term by the European Pressure Ulcer Advisory Panel (EPUAP). They are also known as 'bedsores', 'decubitus ulcers' although these names are now rarely used as it is recognised that the ulcers are not caused by lying or being in bed. The areas that are particularly prone to pressure sores are those that cover the bony areas such as occiput, trochanters, sacrum, malleoli and heel.<sup>[2]</sup>

In Ayurveda this type of etiology can be considered under *Dusta vrana*, which is difficult to heal. *Dusta* is one in which there is localisation of *dosha vata*, *pitta* and *kapha*. *Vrana*, which had a bad smell, has abnormal colour, with profuse discharge, intense pain and takes a long period to heal. *Vrana* which has foul smell, continuously flowing putrefied pus along with blood, with cavity, since long time and has smell etc, *vranalakhanas* are high in intensity, and which is almost opposite to *sudha vrana* is *Dusta vrana*.

### Aim and Objectives

Study was to establish the Ayurvedic management of Pressure Ulcer and Prevention of reoccurrence of the ulcer.

### Case report



**Fig. 1: Ulcer on the day of admission with profuse discharge.**



**Fig. 2:** Ulcer on regular dressing after 4 days with clean edge.



**Fig. 3:** Ulcer 6<sup>th</sup> day of dressing it turns into reddish colour ration but it having deep cavity.



**Fig. 5:** Ulcer on the 12th day of dressing which shows clean healing.



**Fig. 6: Ulcer on 18<sup>th</sup> day of dressing.**



**Fig. 7: Ulcer On 22<sup>nd</sup> day of dressing.**

A 42 years male, unmarried patient, who is resident of rural area of Assam, carpenter as by profession having betel nut as addiction, economically poor, he didn't having history of any other disease, his family history was also nil, He came with history of paraparesis (spinal injury over C4 C5)) since 1 years and was treated in Medical College Hospital of the state, after that since 6month he was kept in his house care was taken by his sister in law and on the day of admission he Paraparesis, uncontrol bladder with bedsores on the lumbosacral region of body [Fig.1]. Patient was under modern medication for wound management but ulcers were not responding to heal. During general physical examination, vitals were reported within normal limits. In neurological examination; tendon reflex of ankle, and motor functions of lower limb were diminished. Patient was unable to sit without and unable to stand or walk with support. During local examination of ulcer, 8cm ×6cm sized bed sores were noted associated with blackish discoloration, mild serous discharge, irregular margins, hyper granulation, and minimal sensations. Hence it was categorized in Grade III bed sore.

**Pressure ulcer stages defined by NPUAP<sup>[3]</sup>**

**Stage I: Non-blanchable erythema:** Intact skin with non-bleachable redness of a localized area usually over a bony prominence. The area may be painful, firm, soft, warmer or cooler as compared to adjacent tissue.

**Stage II: Partial thickness:** Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. Presents as a shiny or dry shallow ulcer without slough or bruising. This category should not be used to describe skin tears, tape burns, incontinence associated dermatitis, maceration or excoriation.

**Stage III: Full skin loss:** Subcutaneous fat may be visible but bone, tendon or muscles are not exposed. Slough maybe present but does not obscure the depth of tissue loss. May include undermining and tunnelling.

**Stage IV: Full thickness tissue loss:** Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present. Often includes undermining and tunnelling. Stage IV ulcers can extend into muscle and/or supporting structures (e.g., fascia, tendon or joint capsule) making osteomyelitis or osteitis likely to occur.

**MATERIALS AND METHODS**

A single case study was done on a patient who was admitted in IPD of Kayachikitsa Dept of Govt Ayurvedic College and Hospital Guwahati, Assam.

**Drugs**

**Aragvadhaddi kashaya:** Ingredients are *Aragvadh*, *Indrayava*, *Patala*, *Kakatikta*, *Nimba*, *Amruta*, *Shigru*, *Sruvriksha*, *Pata*, *Bhunimba*, *Saireyaka*, *Patola*, *Karanja*, *Pootikaranja*, *Saptaparna*, *Langali*, *Karavellaka*, *Bana*, *Madanphala*.<sup>[4]</sup>

It reduces the *kapha dosha* and most of them act on the skin. It has antibacterial, antimicrobial, anti parasitic, and anti-inflammatory properties.<sup>[5]</sup>

**Jatyadi taila:** Its ingredients are - *Nimba*, *Patola*, *Karanja*, *Sikta*, *Madhuka*, *Kustha*, *Haridra*, *Daruharidra*, *Manjistha*, *Katurohini*, *Padmaka*, *Lodhra*, *Abhaya*, *Nilotpala*, *Tuthhak*, *Sariva*, *Naktamala Beej*, *Tiltaila*.<sup>[6]</sup>

It having the wound healing efficacy and also provide evidence of the dermal absorption kinetics.<sup>[7]</sup>



It have *tikta kashaya* quality, it have quality on local application: *Shodhana*, *Ropana*, *Raktaprasadana*. It is considered to be anti-inflammatory, antioxidant, analgesic, anti ulcer, anti microbial and haemostatic.<sup>[8]</sup>

**Yasad bhasma:** Incinerated zinc. Zinc serves as a cofactor in numerous transcription factors and enzyme system including zinc dependent matrix metalloproteinase that augment debridement and keratinocyte migration during wound repair.<sup>[9]</sup>

**Methodology:** Bedsore was cleaned daily with Aragvadhadi Kashaya. After cleaning of ulcer, Jatyadi taila and Yasad bhasma is applied. Combinely, then covered with sterile gauze piece and bandaged once daily. The assessment of ulcer was done on the basis of discharge pain and size of the wound.

## DISCUSSION

A process to remove dead tissue called debridement is an option for cleaning wounds. Keeping the site clean and free of debris is important to promote healing.<sup>[10]</sup> *Dusta vrana* is one of the *Vranas* which needs treatment for its healing, to achieve the main goal of healing, it is necessary to remove the maximum *dusti* by means of *shodhana*, *sravahara*, *dahahara* and *vrana ropana*. Drugs should have *amapachaka*, *tridoshashahara*, *krimihara*, *vishahara*, *puyanirharana* quality to heal *dustavrana*. As the Aragvadhadi Kashaya is used for *dhavan* (washing, cleansing) purpose, after that Jatyadi taila and Yasad Bhasma mixture is used as ointment before bandaging during treatment it was observed that it keeps the edges of wound clean, formation of discharge was less, and by affect of their quality it reduces the size of wound gradually as shown on the figure. The formulation have equal quality like that of Betadine solution, povidone iodine ointment, and other antimicrobial ointment. During the treatment no any detoriation if wound seen no any pus formation seen .It heals the wound and also increases its sensational capacity.

## CONCLUSION

Pressure ulcer is very common in bedridden people as during the course of treatment, we have observed the good prognosis of wound. The size of the wound decrease with appearance of healthy granulation tissue and conditions of ulcer (Blackish discolouration, less sensation) also improved during the treatment period. Thus the Aragvadhadi, Jatyadi taila and Yasad Bhashma have property of healing of bedsore.

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