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Case Report

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ROLE OF "VIRECHANA KARMA AND VRANABASTI" IN DUSTHA VRANA W.S.R. TO CHRONIC OSTEOMYELITIS (ASTHIMAJJA VIDRADHI) – A CASE REPORT

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ABSTRACT

Chronic osteomyelitis is an infection or inflammation of the bone along with its marrow elements. The causes could be legion and infection can reach the bone by many routes. Due to its intricate progress, chronicity and associated severe complications like osteonecrosis, septic arthritis, altered joint mechanics its treatment is a real challenge with the debatable outcomes. In Ayurveda, osteomyelitis is correlated with Dustha Vrana or Asthi-vidradhi. The Vrana more than a week called Dushta Vrana which fail to heal for a long period and result into chronic wound (Dheergha Kalanubandhi Dushta

Vrana), such Vrana needs Shodhana (Abhyantara) and Ropana (Bahya) Chikitsa. The Sastiupkarma could rightly be explored in a novel way for the treatment of chronic osteomyelitis.

The Virechana karma (Therapeutic purgation) and Basti karma in the form of Vrana had been
planned for this case study. The present case study was carried out in IPD of Shalya Tantra
Department, National Institute of Ayurveda, Jaipur on a 23 year old male patient suffering
from chronic osteomyelitis upper medial metaphyseal region of right tibia. Virechana karma
with Mahatikta Ghrita (internal oleation), Abhyadi Modak, Ichabhedi Rasa (Virechana-Yoga)
and Vrana Basti with Yashtimadhu Ghrita for 15 days was given. Patient was assessed
accordingly and significant improvement was observed in the presenting features. Patient is
further taken on the follow up and was observed for over 6 months till date.

KEYWORDS: Asthimajja-Paripaka, Vrana Basti. Dustha Vrana.

INTRODUCTION

Chronic osteomyelitis is an infection or inflammation of the bone along with its marrow elements. The causes could be legion and infection can reach the bone by many routes. Due to its intricate progress, chronicity and associated severe complications like osteonecrosis, septic arthritis, altered joint mechanics its treatment is a real challenge with the debatable outcomes.

Osteomyelitis is defined as an inflammatory and infective condition affecting the bone, which begins as an infection of the medullary cavity, rapidly involving the harversian systems, then extending to involve the periosteum of the affected area. The condition leads to gross morbidity to the patient, owing to its intricate progress, associated chronicity and severe complications.

As the sciences have advanced, newer remedies are tried out for speedy recovery, but the oldest remedies still lead the race. Wound healing procedures described by Sushruta still holds its place today. The faster the wound healing, the faster is the recovery of the patient enabling him to resume his daily routine. These included various purification therapies (Shodhana) and local applications (Ropana) of natural resources, which are available very easily and heal the wound faster without any sepsis.

In Ayurveda, osteomyelitis is correlated with Dustha Vrana or Asthi-vidradhi. The Vrana more than a week called Dushta Vrana which fail to heal for a long period and result into chronic wound (Dheergha Kalanubandhi Dushta Vrana), such Vrana needs Shodhana (Abhyantara) and Ropana (Bahya) Chikitsa. The Sasti-upkarma could rightly be explored in a novel way for the treatment of chronic osteomyelitis. The Virechana karma (Therapeutic purgation) and Basti karma in the form of Vrana had been planned for this case study.

CASE REPORT

A 23 yr old male presented with the Pain, Swelling around right knee joint since eight years and Pus discharge just beneath right knee inner aspect since six years. Patient suffering from chronic osteomyelitis upper medial metaphyseal region of right tibia. Eight years back patient was alright. Patient took Conservative treatment and undergone with Multiple surgical debridement. There is no history of DM, HTN and on local examination there is no varicosity in the affected limb.

Local Examination Right knee (entire lower limb)

Inspection

Discharging sinus with evidence of unhealthy hyper granulation tissue with mild seropurulent discharge from the medial condyle of right tibia with fibrotic scarring.

Palpation

Slightly raised local temperature with mild tenderness & induration around the sinus opening.

• Mild sero-purulent discharge on compression over sinus.

Examination of Right Knee

- No sign of acuteness or effusion of right knee
- Altered joint mechanics owing to varus deformity.
- Palpation revealed minimal tenderness over joint line.
- Restricted joint movement (extension & flexion)

X-Ray (Right Knee with upper 1/3rd leg) findings

- Periosteal/endosteal sclerosis medial aspect medial condyle region upper 1/3rd Rt. Tibia.
- Cavitation/lytic lesion in above said region
- ? Sequestrum with peripheral sclerosis.
- Sclerotic changes in medullary cavity.
- Joint space reduction (lateral condylar complex), marginal sclerosis, osteophytic encroachment s/o secondary osteo-arthrosis.

The family history was not suggestive of anything specific. The classical lakshanas of Dushta Vrana such as Durgandhata, Pooti Puya Sraava, Vedana etc were observed. The adhisthana was mamsa and Asthi with vata-pitta predominance. Routine heametalogy (Hb, TLC, DLC, ESR, RBS) and urine investigations were within normal limits. Susrutha has described the sixty manifold measures (Shasti Vrana Upakarmas) for a wound management from its manifestation to the normal rehabilitation of the hair in the scar. And given foremost to, measures like Shodhana and Ropana in the management of Dusthavrana. Shodhana comprises two varieties of purification.

- Internal purification (Antargata shodhana)
- External purification (Bahirgata shodhana)

As the experts of the wounds recommend Virechana in wounds vitiated by predominant Vata and pitta Dosha and which are chronic.^[2] So here Virechana therapy selected to eliminate these Pravruddha Doshas out from the body and after that Jatyadi Ghrita Vrana Vasti was applied to Dusthavrana. The details of the Virechana procedure are explained in table.

Procedure	Medication	Dose	Duration
Deepana Pachana Aushadhi (Appetizer)	Panchacola Phanta	50 ml twice/day	2 days
Snehapana(drinking medicated ghee)	Mahatikta Ghrita daily morning at 8 am	Day 1=30ml Day 2=60ml Day 3=90ml Day 4=120ml Day 5=150ml	5 days
(a)Sarvanga Abhyanga(whole body oil massage) and (b)Sarvanga Bashpa Swedana (Sudation therapy)	Murchita taila	Day 6, 7 and 8	3 days
Pradhana Karma (Main Procedure) Virechana (Purgation therapy)	Abhyadi Modak, Ichabhedi Rasa was given in the morning by 8 am on the day 8 th	50 gm with 100 ml milk	1 day
Pashchatkarma (postprocedure) Samsarjana Karma	Rice gruel	One glass on the day 9 Day 10 and 11	1 day (whenever hungry) 2 and 3 day

RESULTS

- Significant improvement was seen in pain & swelling.
- Significant reduction was seen in pus discharge after starting of Virechana Karma and Vrana Basti.
- Patient returned to routine work and wound healed completely after treatment for 2 months.
- The patient remained well in follow up for almost 6 months, with no discharge, pain and swelling.

DISCUSSION

Effect of treatment on Varna

Change in colour occurred when Dushta Vrana get converted into Shuddha, which was due to elimination of Doshas out from the body.

Effect of treatment on Srava

The vitiated pitta is responsible for Paka Kriya, which by bitiating the Rakta forms Pooya. The Virechana karma helps in elimination of vitiated Pitta from the body and thus controls upon the Paka Kriya, which results in the subsidence of Srava. Absence of Srava(pus) suggestive of the wound is devoid of infection.

Effect of treatment on Vedana

Vedana Pradurabhava in Dushta Vrana is the effect of vitiated Vata and Pitta Dosha on the Dhatus like Rasa, Rakta, Mamsa etc. Virechana controls the vitiated Vata and Pitta. Thus Virechana therapy not only expels the vitiated Pitta Dosha but also controls the vitiated the Vata Dosha by removing Margaavarodha.

Effect of treatment on Granulation tissue

Virechana not only eliminates the Doshas but also helps in removing the impurities of Jeeva Shonita, Dhatus, Indriyas and Oja, which results in formation of healthy granulation tissue. Effect of treatment on Size of the wound: The Virechana undertaken has helped for proper perfusion (Circulation) to the wound and hence accelerated the wound healing process. Thus it resulted in the reduction of size of the Dushta Vrana.

MODE ACTION OF VIRECHANA

Virechana Dravya eliminates Doshas due to Saratva – Mobility, Sukshma – Minuteness, Tikshna Sharpness, Ushna – Hotness and Vikasi - Loosening (dispersibility)

Action of Gunas (Dalhana)

Saratva Guna - Does Anulomana of Dosha's.

Sukshma Guna - Spreads in all minute channels of the body.

Tikshna Guna - Brings the Dosha's to the Koshta.

Ushna Guna - Does Vilayana (Softening of abstracted Dosha's).

Vikashi Guna - Does the Dhatu Shaithilyakarana. [3]

On the basis of above refrence the probable mode of action described as follows

The Sneha Mahatikta Ghrita used for the Dosha Utklesha purpose, is of lipid binded protein mixed with medicaments enter the cells and get mix up with toxins and waste products of metabolism. Then the purgative drug is given (Abhyadi Modak and Ichabhedi Rasa) in empty stomach when pyloric end is open. The drug passes quickly to the intestine, where while passing through it, produces mild inflammation in it, which increases the permeability of vessels of the intestine. Due to this the Vyavayi, Vikasi and Sookshma properties of Abhyadi Modak, Ichabhedi Rasa quickly reach up to cellular level where the nexus of toxins

with tissues exists. In order to break down the complicated nexus, the Ushna property of drug soften the chemical bonds of the toxins. There after they are broken down by Teekshna property, in to smaller and relatively less harmful molecules which can be removed out of the cell. Thus released toxins and waste products of metabolism are brought to the intestine, where due to purgation action they are thrown out of the body.

So the Snehapana Dravya and Abhyadi Modak, Ichabhedi Rasa are having target oriented activity, which target the cells and cleans the body. And also increases sensitivity of cells in the wound (Dushtavrana) sites towards the local application (Jatyadi Ghrita) and hence accelerates the wound healing process. - The treatment of Virechana along with local application of Jatyadi Ghruta resulted marked improvement in Varna, Vedana, Sraava, size of the wound and granulation tissue.

CONCLUSION

- *Virechana* acts through systemic correction and regulation of Doshas, which involves in the formation of *Dushtavrana*.
- Virechana improves potency of individual cell of the body, increases sensitivity of cells
 in the ulcer site towards the local application i.e. Yasthimadhu Ghrita and hence
 accelerates the wound healing. It has fast wound healing property.
- The combination of *Sodhana (Virechana)* and *Ropana (Jatyadi Ghrita)* resulted in proper and early healing of the *Dushta Vrana*.
- Virechana karma along with Vrana Basti could be an effective measure in the management of Chronic Osteomyelitis.
- Further study needed in large number of patients for better establishment of the treatment.







X-Ray (affected part)

Wound

Vrana Vasti

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