

# ROPANA EFFECT OF GOMUTRA ARKA AND PARANTHYADI KERA BANDHA IN DUSHTAVRANA – A SINGLE CASE STUDY

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## ABSTRACT

The skin serves as the body's outermost layer, possessing considerable importance that exceeds its cosmetic significance. Any traumatic injury or skin lesion result in wound formation. It may either be acute or chronic. To treat chronic wounds/*dushtavrana*, *Acharya Susrutha's shastirupakramas* provide a treatment framework and this case includes *gomutra arka parisheka* and *paranthyadi kera bandha*.

## INTRODUCTION

Wound healing is particularly a challenging area of focus for the practitioners of ayurveda and it is dependent upon several factors. The wound healing process involves four critical stages: haemostasis, inflammation, proliferation and remodelling, which work together to repair the damaged tissue. Based upon the above said process, wounds can be categorized into healing and non-healing types, which can be correlated with ayurvedic concepts of *rudha vrana*, *rudhyamana vrana* and *suddha vrana*. *Acharya Susrutha* explained *shashtirupakramas* as the treatment protocol for the management of *dushtavrana*. It includes *shodhana* and *ropana* of *vrana*. *Vrana parisheka* is the method that involves pouring medicated liquids over the wound. It acts as a mechanical debridement. *Arka* formulation has a one-year shelf life without the use of any preservatives. With more active ingredients extracted, it has *teekshna*, *sukshma*, *vyavyai gunas* in the *Arka kalpana* which aids in achieving results more quickly. *Gomutra* has been explored for its potential benefits in wound management, leveraging its purported antimicrobial properties to promote healing. *Gomutra* is listed as one of the *dravya in parisheka* having *krimighna karma*. *Gomutra* is effective for *shodhana*, *krimi*, *kushtahara*, *lekhana*, *vedhana shamaka*. In comparison to Betadine, *Gomutra arka* had good benefits in lowering burning sensations, itching, smell, size, depth, discharge and the presence of

granulation tissues *Paranthyadi taila* has been mentioned in the context of *mandali visha chikitsa* for the treatment of the wound caused by the bite of *mandala sarpa*.

## CASE REPORT

The present case study shows successful ayurvedic management of *dushtavrana*. A 70-year-old male patient came to our OPD with the chief complaint of wound present at right lower limb associated with pain and pus discharge since 1 year. Patient underwent several other treatment protocols and got only slight relief of symptoms.

On local examination of wound,

### Inspection

- Location – Right lowerlimb near to ankle region
- Size- 5 X 4 cm
- Margin – regular
- Shape – oval
- Edge- sloping edge
- Floor- slight pus discharge present, slight granulation tissue present
- Induration- 1cm width around the wound
- Surrounding area- slightly oedematous with discolouration

## TREATMENT PROTOCOL

*Gomutra arka parisheka* followed by *paranthyadi kera bandha*.

### Materials required:

- Sterile Gloves
- Sterile cotton swabs
- Mosquito forceps
- Kidney tray
- Sterile cotton
- Gauze
- *Gomutra arka*
- *Paranthyadi kera*

**POORVAKARMA**

Informed consent was taken

**PRADHANA KARMA**

Wound cleaned. *Gomutra arka parisheka* was done for 5 minutes followed by *paranthyadi kera bandha* once in a day.

**PASCHAT KARMA**

Suggested the treatment to be continued for 14 days.

**ASSESSMENT**

PARAMETERS	1 <sup>st</sup> DAY	15 <sup>th</sup> DAY
PAIN	6	2
SIZE OF WOUND	5* 4 cm	1*1 cm
EXUDATE	2	0
TISSUE TYPE	3	1



1.Before treatment

2.After treatment

**RESULT**

Pain, wound size exudate and tissue type metrics all indicated steady healing in 14 days.

**DISCUSSION**

*Vrana* in surgical practice requires prominent attention due to its potential complications. Due to various factors, a *vrana* can become complicated and progress to *dushtavrana*, a more severe or chronic state when it refuses to heal or heal very slowly inspite of best efforts. The principle management of *dushtavrana* is described in *ayurveda* in a classical way. In this study, *parisheka* is done with *gomutra arka* and *bandha* is done with *paranthyadi kera*.

***Gomutra arka***

The retained properties of *gomutra* after distillation, may contribute to its potential therapeutic benefits in managing *dushtavrana*, as described in *chikitsa*. It acts as *shodhana*, *lekahana*, *vedana shamaka*, *kandu shamaka*, *krimi* and *kushtahara*. The *gomutra arka* acts as an antimicrobial agent due to its property like *katu tikta kashaya rasa* which are *krimighna* in nature by this inhibition of microorganism could happen also due to the *ushna tikshna* and *kshara guna* gives unfavourable environment for bacterial growth. The presence of constituents like copper, arum, urea, ammonia further helps in antimicrobial activity.

The reference of yoga can be found out in chapter 6 – *Mandali visha chikitsa* in *Visha vaidya jyotsina*. It contains almost 38 ingredients. This formulation is mainly used for the management of *vrana* caused due to snake bite, *sra vana* of *dushtaraktajala*, the problem due to *durgandha*, etc. It gives relief in *vrana*, *kandu* and skin lesions near *vrana* and nerve palsy. The external application of this *taila* is useful in all *vrana* especially due to *mandala sarpa damsha*.

A look on the properties of the drug indicates that eighteen drugs have *sheeta veerya* and twenty *ushna veerya* of the total drugs present. The drugs have *hrudya*, *shulahara*, *vishaghna*, *shophahara*, *kanduhara*, *vrana-ropana*, *krimighna* and *raktaprasadana* properties. *Haritaki*, *Amalaki*, *Shunti* and *Pippali* have *Hrudya* property where, they protect the heart from the effect of poison. *Pippali*, *Maricha*, *Shunti*, *Amalaki*, *Apamarga* and *paribhadra* have *shulahara* property. *Haritaki*, *Amalaki*, *Shunti*, *Haridra*, *Daruharidra*, *Pata* and *Aswagandha* have *shophahara* action. *Tagara*, *Haridra*, *Daruharidra*, *Ishvari*, *Maricha*, *Karpura*, *Kritavetasa*, *Parpatarka* and *Shushavi* are *vishaghna* in action. *Devadaru*, *Haridra*, *Daruharidra*, *Jatamamsi* and *Apamarga* have *kandughna* action. *Plaksha*, *Palisa*, *Udumbara*, *Paranthi* and *Vata* have *vrana-ropana* property. *Jatamamsi*, *Apamarga*, *Paranthi*, *Malathi*, *Trivrut*, *Vacha*, *Kritavetasa*, *Parpatarka* and *Paranthi* have *krimighna* action. *Palisha*, *Ashwattha*, *Udumbara*, *Paribhadra*, *Tamboola* and *Tagara* have *raktaprasadana* property. Thus, these attributes of the drug have a healing action in poisonous bites. Compared to the properties of *visha* these drugs have *sheeta*, *laghu*, *snigdha*, etc. properties and hence will act in counteracting the ill effects caused because of *visha*. *Tikta rasa*- *Shoshana* of *Kapha* and *Kleda*, *Twak*, *Mamsa* *Sthirakarana* property of it helps in giving strength to the healed tissue. *Vrana Shodhana* by keeping the wound area clean *Lekhana* property it prevents the growth of microbes *Krimighna* property- provides the shield against infection *Vishoshakari* nature-helps in wound contraction. *Samgrahi* and *Sthambhana* property- prevention of oozing of blood through the wound. *Shoshana* maintains the dryness of the wound site that prevent the invasion of worms. *Ropana karma* helps in the formation of healthy granulation tissue thus facilitating the wound healing process.

## CONCLUSION

*Dushtavrana* poses a significant challenge in both ayurvedic and modern medical science, comparable to chronic ulcer in modern view. *Acharyas* describe various treatment approaches known as *shashtirupakrama* to manage the *vrana*. In *dushtavrana acharya* mentions *shodhana* and *samana chikitsa* by using the various formulations. In this study using *gomutra arka* as *parisheka dravya* and *paranthyadi kera* as *bandhana dravya* offer as easy, effective treatment for curing the *dushtavrana*.

## INFORMED CONSENT

Informed consent has been provided by the patient to publish the case report and image.

## LIMITATION OF THE STUDY

This is a single case study. Hence more number of cases needs to be subjected to study for the validation.

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