

**ROLE OF HUMARI OIL (EXTRA PHARMACOPOEIAL DRUG) IN THE
MANAGEMENT OF NON-HEALING POST FISTULECTOMY WOUND- A SINGLE
CASE REPORT**

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ABSTRACT

Medicinal plants are an important resource to traditional health care systems. It is estimated that 70-80% of the rural population in developing Asian countries depends on traditional medicine for primary healthcare. Non healing or delayed healing of post-fistulotomy wounds can be attributed to the compromised immunity, poor blood supply and its close association with the source of infection i.e. faecal matter. *Humari* in Gujarati is a folk plant used traditionally for management of boils, wounds, cuts etc. Studies indicate that *S. leucopyrus* posses anti-inflammatory, antimicrobial and antioxidant properties. In this case report a 56 years old patient came to Shalya OPD at IPGT & RA with complains of pus discharge from anal region. He was operated for fistula in ano (Partial Fistulectomy with *Ksharsutra*) twice earlier. On examination patient had a *Ksharsutra*-in-situ and a post-fistulotomy wound (6 cm x 4 cm) at 6 o'clock with pus discharge. Under spinal anesthesia both the tracts were layed open (fistulotomy) and margins were trimmed. After that wound the measurement of wound was 8cmx5cmx3cm. Dressing was done by conventional method but there was no change in wound size even after three weeks. So local wound dressing was done with *Humari* oil daily once in the morning after sitz bath. It was observed that post fistulectomy wound healed within 8 weeks treatment. Study concluded that *Humari* oil is a promising option for the treatment of non-healing wounds at and around anal region.

KEYWORDS: Fistula, *Humari*, Non-healing wound, *Securinega leucopyrus*, *Thumari*.

INTRODUCTION

Medicinal plants are an important resource to traditional health care systems. It is estimated that 70-80% of the rural population in developing Asian nations depends on traditional medicine for primary healthcare today. According to the World Health Organization (WHO), more than 80% of the World's population relies on traditional herbal medicine for their primary health care needs. These valuable herbal traditions found in developing countries have always been considered an important component of the cultural heritage of the world and traditional use and management of medicinal plants.^[1]

Non healing wounds around anorectal regions are a challenge for surgeon. Non healing or delayed healing of such wounds can be attributed to the compromised immunity, poor blood supply, more adipose tissue and its close association with the source of infection that is faecal matter. Therefore, these wounds are difficult to treat, critical and prone to infection. Though there are various schools of thought and modalities for the

management of wound but wound on and around the anal region are difficult to treat. In Ayurveda there are many herbal and herbo-mineral preparations mentioned in the classic for wounds but these are also not very much promising in the management of these wounds.

Securinega leucopyrus, (Willd) Muell. (Family: Euphorbiaceae) known as *Katupila*(in Sri Lanka), *Thumri*(Sanskrit name), *Humari* (in Hindi), *Shinavi* (in Gujarat) and also called as "Spinous fluggea" in English.^[2] It has been used by the tribes of Srilanka and in India. Common in scrub jungles, limited to India, Srilanka and Burma. This is a common weed found all over Sri Lanka although it's a desert climatic plant.^[3] It consists of quasitrin, albumin, resins and coloring agents. *Katupila* possesses *Kashaya* and *Tikta rasas*; *Lagu*, *Ruksha*, *Tikshna gunas*; *Ushna veerya* and *Katu vipaka*. *Katupila* leaves act as an antiseptic and its paste is used in folklore to extract any extraneous materials from body tissues without surgery.^[4] Extracts of leaves had exhibited in vitro broad spectrum antimicrobial activities. Juice or paste of leaves used along with tobacco to

destroy worms in sores. Pharmacognostical study of *S. leucopyrus* powder shows the presence of calcium oxalate crystals, large amount of tannin and oil helpful in the treatment of cuts and wounds.^[5] Sesame oil has *Vrana Shodhan* (wound cleaning) and *Vrana Dahanashaka* (relief in burning pain) properties was used along with the paste.^[6]

CASE REPORT

A 56 year old patient came to Shalya OPD at IPGT & RA with complains of pus discharge from Anal region. He was operated for fistula in ano (Partial fistulectomy with *ksharsutra*) twice earlier. No history of any other medical or surgical illness reported by patient.

On examination patient had a *Ksharsutra*-in-situ and a Post fistulectomy wound (6x4 cm) at 6 o'clock with pus discharge. On probing a tract was found in the wound at 6 o'clock. All the haematological, biochemical investigations were within normal limit. Then under spinal anesthesia both the tracts were layed open (Fistulectomy) and margins were trimmed. After that wound measurement was 8cmx5cmx3cm.

Preparation of Humari oil

The *Humari* oil was prepared in Pharmacy GAU, Jamnagar by adopting classical method of *snehapaka kalpana* using kwath of *Humari* leaves, *humari* leaves paste and sessame oil.

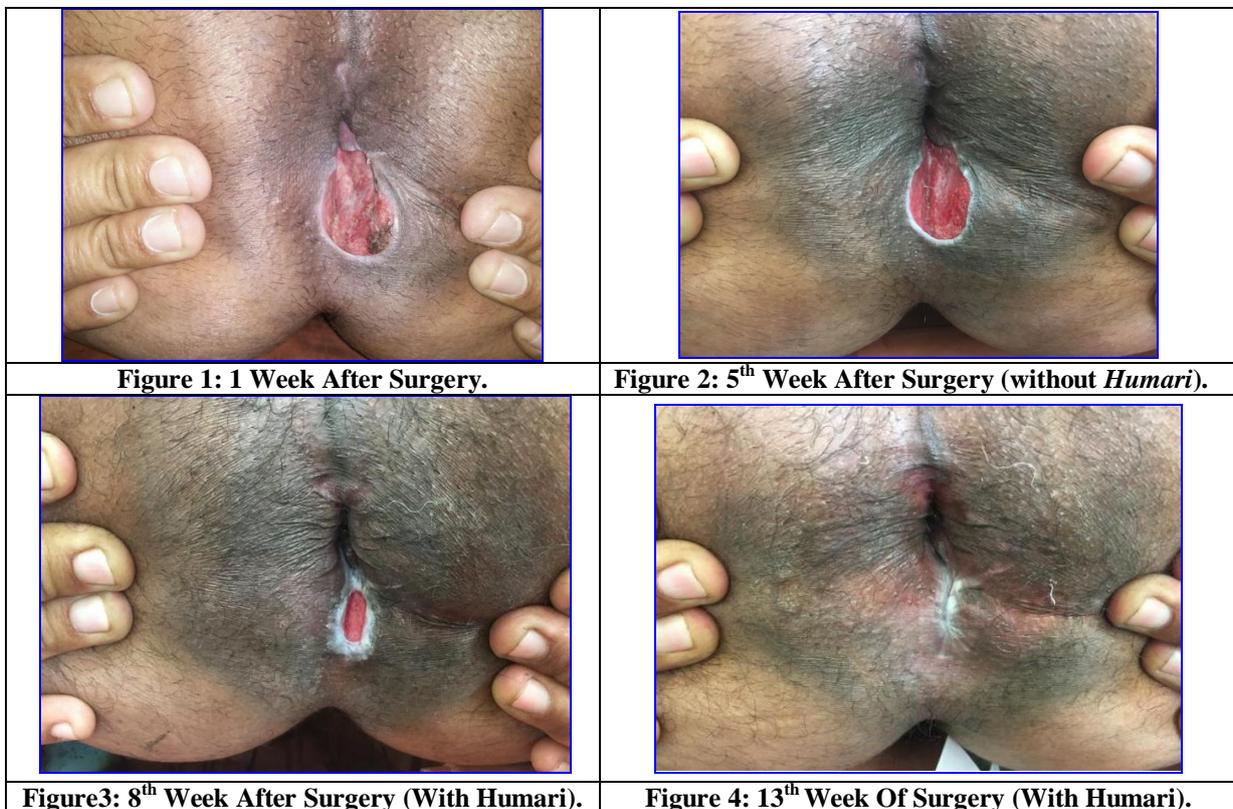
Method of dressing

First sitz bath was advised in *Panchvalkal* decoction then in ARC (Ano rectal Clinic), was cleaned with normal saline. The cotton gauze soaked in *Humari* oil was applied on wound and T bandage was applied. This procedure was followed daily till wound healing i.e. for 8 weeks.

OBSERVATIONS

Dressing was done by conventional method both Ayurveda and modern (*jatyadi* oil application, application of placentrex ointment) but there was not much improvement in wound size For 3 weeks weeks. There was no evidence of any infection, wound was healthy. Discharge was checked for culture and no any organism was isolated. Even though the wound was not healing and size of Wound remained same.(Figure 2) So, local wound dressing was started with *Humari* oil once in the morning after sitz bath.

Wound assessment was done every week, on 1st week of application of *Humari* fresh contracting margin started appearing denoting the sign of Healing, granulation tissue were observed. On 3rd week (8th post operative week) wound size had reduced to almost 60% of previous wound. (Figure 3) On 5th week (8th post operative week) of treatment wound had contracted to almost 40% of the previous wound size and finally Wound healed completely after 8th weeks (13th postoperative week) of treatment. (Figure 4).



DISCUSSION

All the signs mentioned by Sushruta for *shudha vrana* (clean wound) were seen but the wound was not healing with the conventional treatment.^[7] The wound healing in such cases is delayed because of poor blood supply, association with source of infection and compromised immunity. But after application of *Humari* oil wound started healing, with healthy granulation, epithelisation and contraction of wound which finally healed within 8 weeks. This can be attributed to the antimicrobial properties of the *Humari*, which helped to control the local infection.^[8] Complete wound healing was observed within 8 week treatment which may be due to *Lekhana* (scraping), *Shodhana* (cleaning) and *Ropana* (healing) properties of the drug which can be due to abundance of *Kashaya ras* (Astringent taste)^[9] and *Tikta ras* (pungant taste).^[10] *Prinana* (nourishment), *Dhatuwardhana* (tissue strength) and *Dhatuposhana* (nutrition) actions of *Katupila* helped to reduce the wound size by promoting healing and increasing the rate of contraction. Besides that, the antioxidant property of *Humari* due to the presence of flavonoids, tanins in abundance may be responsible for promoting the healing.

On the contrary Povidone iodine, often used for dressing conventionally does not promote wound healing rather impairs wound healing and reduce wound strength.^[11] Studies show that this drug may have cytotoxic effect in some cases.^[12]

CONCLUSION

Study concluded that *Humari* oil is a promising option for the treatment of non-healing wounds at and around anal region.

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