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KSHARKARMA WITH *TUTTHA* IN THE MANAGEMENT OF HYPERGRANULATION IN POST OPERATIVE FISTULA – A CASE STUDY

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INTRODUCTION

- A wound is a break in the continuity of the covering skin or mucous membrane due to any trauma or underlying pathology.
- Wound healing is a process where the skin repairs itself after injury with the help of granulation tissue and epithelisation.
- Hypergranulation is an unusual healing response, presenting as an overgrowth of fibroblasts and endothelial cells with a similar structure to healthy granulation tissue but in excess.
- *Acharya Sushruta* stated *Astavidha upakrama* in the management of *vranashopha* in *Misharakadhyaya.*
- Non-proliferation of granulated or hypergranulated tissue are two factors whichcan hinder the process of wound healing.
- For such conditions *Acharya Sushruta* stated *Utsadana* and *Avsadana Upakrama* in *astavidha upakrama*. Hypergranulation can be managed either surgically or non-surgically.

उत्सन्नमांसान् कठिनान् कण्डू
युक्तान् चिरोत्थितान् । तथैव
खलु दुःशोध्यान् शोधयेत् क्षारकर्मणा ।।[1]
सु. चि. १-८८

- Surgically debridement done under local anaesthesia and nonsurgically *Lekhana karma* or scrapingis carried out with *Sagpatra* and wiping can be done with cotton gauze as well as it can be done with the application of some herbal medicines as mentioned in our Ayurvedic text.

- Available conventional method for management of hypergranulation are.

1) Chemical cautery with silver nitrate.
2) Surgical excision.
3) Hypertonic saline and laser oblation.

- However, these treatments are often not considered uniformly successful *Ayurved* Describe *Ksharkarma* for the management of such condition which is described as उन्नतव्रण and उत्सन्नमांसा in *Sushrut chikitsa*

तु तुत्थकं स्वय ठि
वा कर परम् | कफघ्नमथ
तुष्यव्रणदोषनिषूदनम् ॥७६॥
उपदशफरगोथक्षतशोधनकृ तपर |
ष्टिवमै शमन क्षारकमकर स्मृतम् ॥७७॥[2]
- र.त21/76, 77.

In Rastaringini, the reference is seen as *Tuttha* is freely available *kshar* for any *ksharkarma* procedure. It's chemical composition is copper sulphate CuSO4. So is the following study is carring out by using *Tuttha* as *Kshar* in Hypergranulation.

STUDY

The present case of male patient of 51 years, who was operated for fistula on 12/10/22 and presented with hyper granulated post op wound on 25/12/22. There was no history of any major illness like diabetes mellitus, tuberculosis. It was treated with daily dressing but there was no reduction in wound size. But it gradually became hypergranulated. The day on which hypergranulation was seen, wound size was 3×2.5 cm with mild slough, mild serous discharge, and pale hypergranulation. The diagnosis was confirmed as hypergranulated wound.

So, it was decided to manage the wound by local application of an ayurvedic drug *tuttha kshar*.

Hypothesis

Tuttha is effective in management of post operative hypergraulation in fistulectomy wound.

AIM

Kharkarma with *tuttha* in the management of hypergranulation in postoperative fistula – a case study.

OBJECTIVE

To observe complete resolution of hypergraulation with *tuttha* as *pratisaraniya kshar*.

MATERIAL AND METHODS

Preprocedure

a. Patient's well informed written consent was taken.

b. Proper shodhana of *Tuttha* was done as per Ayurvedic text.

Procedure

Wound site and its periphery were cleaned with normal saline. *Tuttha churna* was applied over hypergranulated wound and kept for 100 *matras* and washedwith normal saline.

Tuttha churna was applied on every 4th day till complete debridement of hypergranulation in wound was achieved. Which was observed after three application.

OBSERVATION

Table 1: Effect of Tuttha kshar on symptoms of hypergranulated[3] wound.

Sittings	Hyper-granulation	Surrounding Skin	Pain	Dis-charge	Slough
1	Present	Inflamed	2	1	2
2	Present	Normal	1	1	1
3	Completely healed	Normal	0	0	0



Figure 1: Before Procedure. Figure 2: Application of Tuttha. Figure 3: After procedure.

DISCUSSION

- Hypergranulation is known by many terms including overgranulation, proud flesh, hypertrophic granulation and hyperplasia of granulation tissue.
- It is the condition that delays wound healing process.
- Hypergranulation occurs in a wide range of wounds including pressure ulcers, burns and venous ulcers and presents clinically in several forms.
- Suggested causes include prolonged inflammation caused by infection or foreign body irritant (such as dressing fibres) or by external friction.
- Links between the use of occlusive dressings (such as hydrocolloids) and hypergranulation have also been made.
- It also appears to develop as a result of a cellular imbalance.[4]
- In this case study use of *Tuttha churna* having property of *lekhan, shodhan* and *ropana* karma for local application was done, which results in non- surgical debridement of wound and significant result in healing of the wound.
- Table 1: shows significant decrease in symptoms of hypergranulated wound.

Probable mode of Action of Drug

तु□□तु ातक् स्वय ठि वा□□कर परम् ।
कफघ्नमथ □□तुष्यव्रणदोषान्नषूदनम् ॥७६॥
उपदशाफरगोथक्षतशोधनकृ तपर ।
□िष्टवमै शमन क्षारकमकर स्मृतम् ॥७७ ॥[2]
-र.त21/76,77

Tuttha[5] is a mineral having properties like *Tikta Rasatmak, Katu vipaka, Usna virya, Twacchya, Vranaropak*[6]*, kushtaghna, vishghna, raktashodhaka, Kaphashamak. Tikta rasa* have *ropana, lekhana* and *kleda upshoshana* property. As *Tuttha* having all these properties like *lekhana* due its *rasa virya vipaka*, Scrabbing action was take place which reduces the wound and its properites like *vranaropana* wound healing was take placed.

CONCLUSION

It can be concluded that local application of *Tuttha churna* reduces hypergranulation significantly specially in chronic non-healing hypergranulated[7] wound (*Shodhana karma*) and simultaneously healing ofwound (*Ropana karma*).[8]

The above mentioned *dravya* are used in such a small proportion that it does not produces any

systemic toxicity.

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