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## **Case Study**

# MANAGEMENT OF PYOGENIC GRANULOMA ON EYELID THROUGH CHEMICAL CAUTERIZATION (KSHARA KARMA)

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#### **KEYWORDS:**

Arshavartma, Pyogenic granuloma, Kshara karma, Tilanala Kshara.

#### **ABSTRACT**

Pyogenic granuloma is an acquired benign vascular proliferation. Clinical features are rapid painless, red polypoid papule or nodule growth on skin or mucus. Both surgical and nonsurgical treatments are advised for pyogenic granuloma. Arsha vartma is one among Netraroga explained in Vartmagataroga's according to Acharva Sushruta Arsha vartma tridoshaja chedana Sadhya vyadhi, is characterized by the eruption of a small, rough, lesion in lid margin which resembles *Ervaru beeja* (size of the lesion is similar to Cucumber Melos seed) and mild pain. Acharya Vaabhata included few other clinical features like burning sensation, bleeding and cure even after removal. Objective: to see the effect of Tilanala kshara in pyogenic granuloma. Methods: A 32 years old male patient visited our OPD of Shalakya Tantra, SJGAMC, Koppal, with complaints of painless slow growing mass on right upper eyelid near lid margin, occasionally bleeding with trauma since 20 days. Patient was diagnosed as Pyogenic granuloma (Arsha vartma). Patient was treated with 1 sitting of Tilanala Kshara Pratisarana and Jathyadhi ghrita ointment for 7 days. Result: complete resolution of pyogenic granuloma was seen in 7 days Conclusion: Chedana, Bhedana, Lekhana Dahana karma of Kshara have effect on pyogenic granuloma and prevent the recurrence.

#### INTRODUCTION

Pyogenic granuloma is an acquired benign vascular proliferation, most commonly seen on skin or subcutaneous tissue. It is also called lobular capillary hemangioma[1] subtypes including subcutaneous, intravenous, eruptive and associated with satellites. Pathology of pyogenic granuloma is not angiogenesis-related dysregulation clear, hypothesized in its development<sup>[2]</sup>. Ocular pyogenic granulomas are rare. Usually, occurs on eyelids, conjunctiva and cornea. Symptoms include rapidly growing, painless, red polypoid papule or nodule with an average size of 6.5mm, reaching its maximum in a few weeks<sup>[3]</sup>. The lesion bleeds with trauma. Treatment modalities are surgical and non-surgical approaches.



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Surgical approaches can include excision, curettage and cauterization. Non-surgical management includes cryotherapy with liquid nitrogen, laser ablation, sclerotherapy, topical imiguimod, diathermy, radiation, steroids and bleomycin injection<sup>[4]</sup>. Complete excision with suturing has lower rate of recurrence<sup>[5]</sup>. In cosmetic area shave excision or curettage followed by electrocautery is used but these modalities have more recurrence rate<sup>[6]</sup>. On the basis of signs and symptoms of pyogenic granuloma can be compared with Arsh vartma. Acharva's have diverse perspectives on Arsha vartma. Clinical features of Arsha vartma are the formation of lesion which may appear as Sukshma (small), Khara (rough), Eravaru beeja Pratima (size similar to cucumber melos seeds) in lid margin with mild pain[7], Rakta varna (reddish), Stabda (rigid), Raktasrava (bleeding from lesion) with burning sensation and recur even after surgical removal<sup>[8]</sup>. Treatment modalities are excising the lesion using a surgical technique<sup>[9]</sup>. Considering the cosmetic aspect and to prevent recurrence of pyogenic granuloma in case Tilanala Kshara karma (chemical cauterization) was done.

#### **CASE REPORT**

#### **Patient Information**

A 32-year-old male patient visited our outpatient department of *Shalakya tantra*, SJGAMC, Koppal, Karnataka, India with complaints of a painless slow-growing mass on the right upper eyelid near the lid margin, occasionally bleeding with trauma for 20 days.

**Past history:** The patient has no history of ocular surgeries, trauma or any eye infection.

## **Clinical Findings**

## Ashtavidha pariksha (eight-fold examination)

Nadi (pulse) was Pitta-Kapha. Mutra (urine) and Mala (feces) were normal. Jihva (tongue) was non-

coated. *Sparsha* (touch) was warm. *Shabdha* (voice) was normal. *Drik* (eyes)- nodule was present on the eyelid and he was moderately built.

## **General examination**

On examination *Sharirika Prakriti* of the patient was *Pitta-Kaphaja*. Pulse was 78bpm, blood pressure was 120/70 mm of Hg, and respiratory rate was 20cpm, abdomen was soft and non-tender. Respiratory, cardiovascular and central nervous system functioning were normal.

**Local examination:** Clinical findings of anterior segment of eye are mentioned in Table. 1.

Table 1: Clinical finding

	Right	Left	
Visual acuity	6/6	6/6	
Eyelid	Non-tender purple-red polypoidal lesion, 5*4mm was present near the lid margin	Normal	
Eyelashes	Trichiasis	Normal	
Conjunctiva	Normal	Normal	
Cornea	Normal	Normal	
Sclera	Normal	Normal	
Pupil	Normal of wip://ijapr.in	Normal	

Differential Diagnosis: Molluscum contagiosum, ruptured chalazion granuloma, pyogenic granuloma.

**Diagnosis:** Based on history and clinical presentation, the patient was diagnosed with Pyogenic granuloma (*Arsha Vartma*).

#### **Treatment Intervention**

After receiving written informed consent from the patient, treatment was done. First day (30-01-2024) *Tilanala kshara* application was done. After *kshara* application *jathyadhi ghrita* was given for external application. The treatment protocol is shown in Table.2

**Table.2 Treatment Protocol** 

Sl.No	Treatment	Duration
1	Tilanala kshara Pratisarana	1 sitting
2	Jathyadhi ghrita ointment	7 days

#### Time Line

The timeline of the treatment is depicted in Figure 1

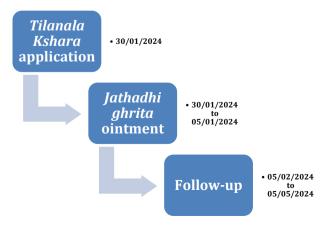


Figure 1: Timeline of the treatment

#### Kshara Karma Procedure

## Purvakarma (Pre-Procedure)

- Explained about procedure and consent was taken
- Material collection- Tilanala kshara, Kshara applicator. Nimbu swarasa and cotton.
- The patient was made to lie in a supine position.

## Pradhanakarma (Procedure)

- Eyelid was wiped with gauze.
- Patient was asked to close evelid.

## **OBSERVATION AND RESULTS**

Observation and results shown in Figure. 2

- Application of *Tilanala Kshara* with applicator.
- Kshara was kept for 1min.
- Kshara was removed when its colour changer into Jambuphala varna.
- After removal of Kshara, Nimbu swarasa was applied over that to neutralize the *Kshara*.

## Paschat karma: (Post-Procedure)

> *[athyadhi ghrita* ointment applied over the burnt area.

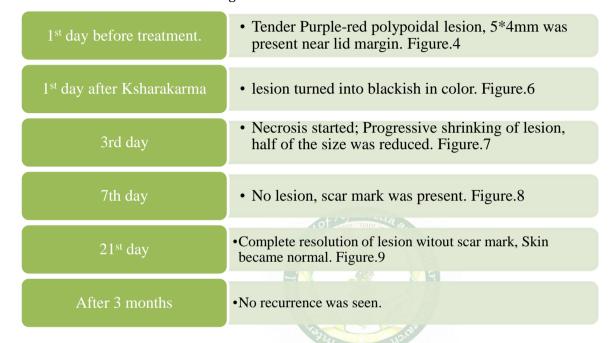


Figure 2: Observation and treatment

## **DISCUSSION**



Figure 4: Before treatment

Figure 5: During Kshara Pratiarana

Figure 6: After kshara Karma

Figure 7: 3rd Follow up



Figure 8: 7th day Follow up

Figure 9: 21st day Follow up

### DISCUSSION

Pyogenic granuloma is benign growth. Arsha vartma is Tridoshaja chedana Sadhya vyadhi. So, it should be excised by surgical or para surgical procedure. In this case, the pyogenic granuloma was occurred on the upper eyelid near the lid margin, so the surgical excision procedure may damage the surrounding tissues and lead to many complications. In shave excision, there is a chance of reoccurrence. To prevent complication in this case, plant origin chemical cautery Tilanala Kshara was used.

#### Mode of action of Tilanala kshara

Among shastra and Anushastra, Kshara is best. Kshara defines Ksharanat Kshanat va kshara<sup>[10]</sup> means Kshara removes/destroys the morbidities from the skin, muscles, etc. Kshara is prepared from many plants. animals, and minerals.

Tilanala possesses Kashaya Tikta rasa (bitter and pungent taste), Guru (heavy), Snigdha (unctuousness) guna, Ushna veerya (hot potency), Madhura vipaka (sweet bio-transformed Rasa)[11].

Vyavayi and Sukshma properties of Tilanala kshara enters into Srotas (minute channels) Ushna

Tikshna destroys the stagnant Doshas, Dahana karma of Kshara cauterize the tissue and Lekhana (Scraping) and Chedana karma of Kshara aids in the shedding of the Pidika and Ropana karma facilitates healing of the Pidika<sup>[12]</sup>.

Tilanala kshara by its alkalinity (PH is 10.5) used as chemical cautery in pyogenic granuloma. Tilanala kshara cauterizes the tissue causing it to necrotize and subsequently shed necrosed tissue. Because of its alkaline nature also acts as an antibacterial and anti-inflammatory, helps in rapid healing of wound by preventing subsequent infections<sup>[13]</sup>.

## Mode of action of Jatyadhi ghrita ointment

Jathyadhi ghrita ointment contains Jati, Nimba Patra, Patola Patra, Katuka, Darvi, Nisha, Sariva, Manjishta, Tuttha, Abhaya, Madhuka, Karanja, Sarpi and Sikata. Invitro studies of Jathyadhi ghrita have shown antibacterial and anti-inflammatory property. It accelerates wound healing by faster re-epitheliazation, faster maturation of granulation tissue and early angiogenesis<sup>[14]</sup>.



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Figure 3: Mode of action of Tilnala kshara

#### **CONCLUSION**

In this case study *Tilanala kshara* was found effective in pyogenic granuloma. Without any complication, complete resolution of pyogenic granuloma occurred in 7 days after application of *Tilanala kshara*. No residual scarring and No reoccurrence were observed at the 3 months of follow-up. So *Tilanala kshara* is a substitute for surgery, easy to administer, even useful in hard to treat areas. Safe, cost effective and Prevents recurrence.

## **Declaration of patient consent**

The patient has given consent for publishing his case along with images in the journal. And clearly explained to the patient that his name and initial would not be published anywhere and would not disclose his identity to others.

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