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# A CLINICAL STUDY ON THE EFFICACY OF KSHARASUTRA IN MANAGING BENIGN TUMORS OF THE NASAL CAVITY

*Ksharasutra as a Cost-Effective Alternative to Conventional ENT Surgery*

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**Abstract :** Benign tumors of the nasal cavity, such as nasal polyps and papillomas, are common causes of nasal obstruction, epistaxis, and recurrent sinus infections. Conventional surgical approaches often carry risks of recurrence, bleeding, and postoperative complications. Ayurveda offers a minimally invasive para-surgical technique, Ksharasutra, which combines mechanical pressure, chemical cauterization, and debridement properties. The present study evaluates the efficacy of Ksharasutra therapy in managing benign nasal tumors. Observations showed effective sloughing of the mass, minimal bleeding, rapid healing, and no recurrence over six months of follow-up.

**Keywords:** Ksharasutra, Nasal Tumor, Shalakya Tantra, Ayurveda, Benign Growth, Nasal Cavity, Para-surgical procedure, Apamarga Kshara.

## 1. INTRODUCTION

Benign tumors of the nasal cavity—including nasal polyps, inverted papillomas, and fibromas—are commonly encountered ENT conditions. Although non-malignant, these lesions can produce significant morbidity, including nasal obstruction, recurrent discharge, headache, sinusitis, and occasional bleeding.

Modern treatments such as polypectomy, endoscopic excision, and microdebrider-assisted removal provide symptomatic relief, but recurrence remains a major challenge. Postoperative bleeding, surgical trauma, and cost factors further complicate management.

In Ayurveda, nasal disorders are described under **Nasagata Roga**, and para-surgical measures like **Ksharasutra therapy** have shown promising results beyond their classical indications. Ksharasutra, with its **cauterizing (Ksharana)**, **scraping (Lekhana)**, and **healing (Ropana)** properties, offers a minimally invasive alternative to surgery.

This study evaluates the role of **Apamarga Ksharasutra** in treating benign nasal tumors.

### 1.1. NEED OF THE STUDY.

- **High recurrence rates in modern surgical management** necessitate an alternative therapy that offers sustained results.
- Conventional surgeries may lead to **intraoperative bleeding, mucosal injury, and postoperative infection**.
- Many patients prefer **non-surgical, minimally invasive, cost-effective** treatment options.
- Literature on the **application of Ksharasutra in nasal cavity tumors** is limited despite its proven efficacy in other soft tissue lesions.
- There is a need to explore **Ayurvedic para-surgical methods** that preserve mucosal architecture while ensuring complete removal of the lesion.

Therefore, assessing the efficacy of Ksharasutra in benign nasal tumors becomes important.

## 2. METHODOLOGY

### 2.1 Study Design

A single-centre clinical observational study conducted at the Department of Shalakya Tantra, Prem Raghu Ayurvedic Medical College & Hospital.

### 2.2 Sample Size

Five patients aged **25–55 years** diagnosed with benign nasal masses.

### 2.3 Inclusion Criteria

- Pedunculated benign nasal mass
- ENT and histopathological confirmation
- Willingness for Ayurvedic para-surgical treatment

### 2.4 Exclusion Criteria

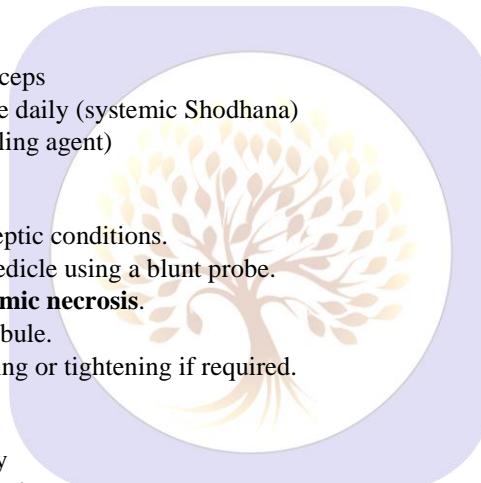
- Suspicion of malignancy
- Diffuse or infiltrating lesions
- Coagulopathies or systemic illness
- Large masses requiring operative theatre support

### 2.5 Pre-Procedure Preparation

- Written informed consent
- Nasal decongestion using **xylometazoline drops**
- Local anesthesia with **2% lignocaine**
- Sterile saline irrigation

### 2.6 Materials Used

- **Apamarga Ksharasutra**
- Nasal speculum, blunt probe, forceps
- **Triphala Guggulu 500 mg** twice daily (systemic Shodhana)
- **Yashtimadhu Ghrita** (local healing agent)



### 2.7 Procedure

- Nasal cavity visualized under aseptic conditions.
- Ksharasutra passed around the pedicle using a blunt probe.
- Thread tightened to induce **ischemic necrosis**.
- Ends secured near the nasal vestibule.
- Weekly follow-up for repositioning or tightening if required.

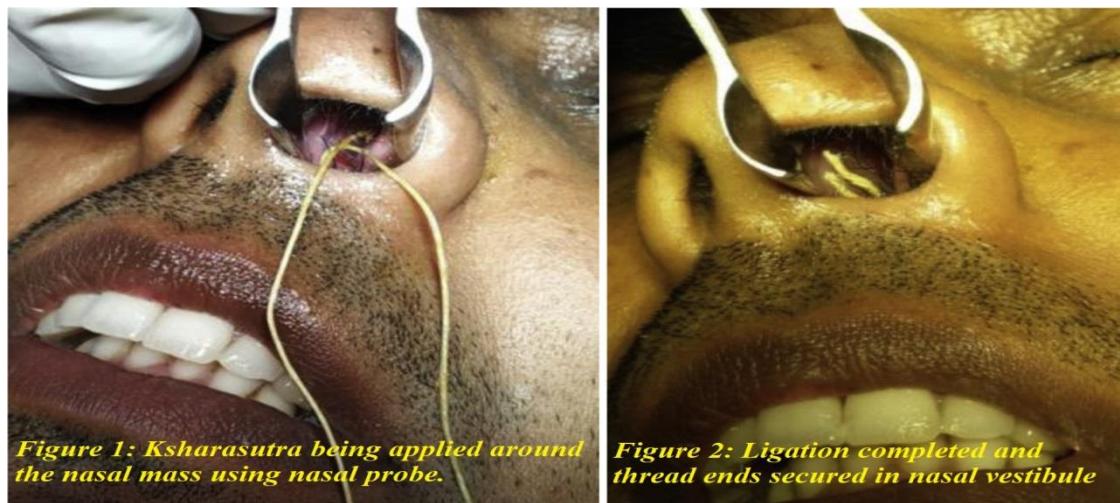
### 2.8 Post-Procedure Care

- Saline nasal irrigation twice daily
- Application of **Yashtimadhu Ghrita**
- Oral Triphala Guggulu
- Monitoring for sloughing and healing

### 2.9 Follow-Up

- Initial weekly follow-up for 4 weeks
- Monthly follow-up for 6 months
- Histopathological examination of sloughed tissue

*Figure 1: Ksharasutra being applied around the nasal mass using nasal probe.*



**Figure 1: Ksharasutra being applied around the nasal mass using nasal probe.**

**Figure 2: Ligation completed and thread ends secured in nasal vestibule**

**Figure 2: Ligation completed and thread ends secured in nasal vestibule.**

### 3. RESULTS

- Complete detachment of the mass in **10–14 days** in all cases.
- **Minimal bleeding** and **no postoperative infection** were observed.
- Epithelial healing completed within **7–10 days** after sloughing.
- **No recurrence** during a six-month follow-up period.
- Patients experienced complete relief from:
  - a. Nasal obstruction
  - b. Discharge
  - c. Occasional epistaxis

The procedure was well tolerated and required minimal instrumentation.



**Figure 3: Pre- and Post-procedure nasal cavity appearance showing healing and epithelialization.**

## 4. DISCUSSION

The effectiveness of Ksharasutra is attributed to:

### 4.1 Mechanism of Action

- **Ischemic necrosis:** Tight ligation cuts off vascular supply, causing controlled necrosis of the mass.
- **Alkaline cauterization:** Apamarga Kshara promotes tissue sloughing and prevents microbial growth.
- **Snuhi latex and Haridra:** Provide antiseptic, anti-inflammatory, and healing actions.
- **Lekhana property:** Prevents recurrence by ensuring complete removal of remnants.
- **Shodhana effect:** Maintains a clean wound environment, accelerating epithelialization

### 4.2 Comparative Advantages Over Surgery

Parameter	Surgery	Ksharasutra
Bleeding	Moderate	Minimal
Recurrence	Common	Rare
Healing Time	Variable	Predictably short
Cost	Higher	Low
Need for OT	Yes	No (OPD-based)

Ksharasutra thus emerges as a **safe, simple, and effective** alternative for benign nasal tumors.

## 5. CONCLUSION

Ksharasutra therapy offers a **minimally invasive, cost-effective, and recurrence-preventive** method for managing benign nasal tumors.

Its outcomes—minimal bleeding, rapid healing, outpatient feasibility, and zero recurrence—make it a valuable addition to the Ayurvedic surgical repertoire.

Further large-scale studies are recommended to establish standardized protocols for nasal applications of Ksharasutra.

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