**A study on the efficacy of *Rakshoghna Dravya Dhupana* in Management of *Karna Strav***

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**ABSTRACT**:
**Background**: *Salakya* *tantra* is one among the 8 branch of *Astang* *Ayurved*, which deals with disease of *Netra*, *Nasa*, *Karna*, *Shir* *evam* *Mukha* *Roga*. Where 28 *Karna Roga* are described.From 28 *Karna Roga,* *Karnastrav* is one distinguished by Ear Discharge. This condition is linked to ASOM (Acute Suppurative Otitis Media). Morden Medicine mentions several therapeutic modalities. However by following therapy, discharge from the ear may be reduced or stopped, but if not, surgical treatment is the sole option to treat, however in many cases, discharge reappears after surgical treatment and causing hearing problems. Aacharya Shushrut outlined various processes for *Karnastrav* in Samhita, including *Shirovirechan, Karna Dhupan, Karna Puran, Karna Pramarjan*, and *Karna Dhavan*. For *Karnastrav,* *Karna* *Dhupan* is the choice of treatment. Acharya Charaka had mentioned that the treatment of *Karnasrava* should be done accordingly to the *Vrana Kriya* (wound management). In *Karnastrav* there is one type of *Vran* occurs in Tympanic membrane and then discharge occurs. If *Karnastrav* consider as *Vran* in the Tympanic Membrane and *Rakshoghna* *Dhup* as *Vrana Dhupan*, It may substitute *Rakshoghna Dhup* for *Karnadupan* in *Karnastrav*. **Aim:**  To Find out the efficacy of *Rakshoghna* *Dhupan* in the Management of *Karnastrav*. **Material and Method**: A Case report of a 44-year-old female patient with chief complaints of *Karna Gauravata* (Heaviness in both Ears), *Karna Shul* (Mild Pain), *Karna Strav* (Purulent discharge) from both Ear Associated with *Karna Shravan Alpata* (Reduced hearing), *Karna Avidhyaman Dhvani Shruti* (Ringing sound), *Karna Kandu* (Itching). *Nasa Strav* (Watery discharge from nose) and *Shiro Gauravta* (Heaviness of head) in recurrent condition is reported here. **Discussion**: The main objective of treatment should be to eliminate the Eustachian tube obstruction, ventilate the middle ear cleft, and regulate the secretions. Oral systemic medication was also used. *Karnasrava* is induced by *Vata Dosha*, according to our Ancients. *Karna dhoopana* not only dries out the *Srava*, but it also inhibits the growth of microorganisms. **Conclusion**: Ayurved medications can treat the condition known as *Karnasrava*, which has been around since ancient times and is co-related to acute suppurative otitis media (ASOM). The ingredients of *Rakshoghna Dhup*, including *Guggal, Agru, Sarjras, Vacha, Gaursarshap, Nimba Patra,* and *Aja Ghrit*, aid to reduce ear discharge. The outcomes of treatment are encouraging which proves that Ayurvedic medications offer durable and risk-free advantages.

**Key** **Words**: *Karnastrav*, Otitis Media, *Karnadhupan*, *Guggalu*, *Rakshoghna* *Dhup.*

**INTRODUCTION**:

Acharya Charaka mentioned four types of *Karna roga.*[[1]](#endnote-1) Acharya Vagbhatta mentioned twenty-five types of *Karna roga*,[[2]](#endnote-2) but did not include *Karnasrava*. Acharya Sushruta mentioned twenty-eight types of *Karna roga*[[3]](#endnote-3) including *Karna Srava*.Although *Karnastrav* is a separate disease, it is a common symptom of other *Karna roga.* Acharya Charka mentioned *Karnasrava* as a symptom under the four types of *Karna roga* due to vitiation of different Doshas*.*[[4]](#endnote-4)

*Karnastrav*[[5]](#endnote-5)Characterised by discharge from Ear. Apart from *Samanya Karna roga nidan* of *Karnastrav*, *Vishesh Nidans* such as *Shirobhighat*, *Jal* *Nimajjan* and *Vidradhi[[6]](#endnote-6)* that leads to *Karna*s*trav.* *Karnastrav* can be Co –related with Acute Suppurative Otitis Media (ASOM) in Morden Medical.

ASOM is a common infection affecting the mucosa of middle ear cleft. It occurs at all ages but more common in children as the Eustachian tube is shorter, wider, and more horizontal and opens at a lower level. Infection in middle ear reaches through Eustachian tube, External Ear, Head injury and blood- borne infection and usually streptococcus haemolyticus, staphylococcus aureus etc, and other respiratory track organisms.[[7]](#endnote-7) In today’s era, changes in food habits, working schedule, irregular Atmosphere changes and pollution etc. Hampers person’s daily lifestyle and responsible for upper respiratory tract infection and then recurrences of that infection or chronicity that leads to acute condition of Suppurative Otitis Media. ASOM can be treated with antibiotics, Analgesics, and Local Ear Drops in Morden Medicine.[[8]](#endnote-8) Now a days there are number of higher antibiotic used but still it’s difficult to treat middle ear infection due to its relapse. And then there is only choice of treatment is surgical.[[9]](#endnote-9) Even though there’s chance of recurrence of middle ear infection and discharge from ear.

 Ayurveda and modern science both are agree unanimously that the Nasal Rinitis, Nose pathology and Nasopharynx,[[10]](#endnote-10) *Pratishyaya[[11]](#endnote-11)* are the root cause for *Karna Srava* / ASOM.

**TABLE No. 1*: Samprapti Ghatak* *Of Karnastrav:***

|  |  |
| --- | --- |
| *Dosha* | *Vata Pradhan Tridosha* |
| *Dushya* | *Ras, Rakta, Mamsa* |
| *Strotas*  | *Ras Vaha, Rakta Vaha, Mamsa Vaha* |
| *Agni* | *Jathragnimandhya* |
| *Udbhav Sthan*  | *Aamashaya* |
| *Adhisthan* | *Karna* |
| *Stroto Dushti Praka* | *Vimargagaman Paschat Sanga* |

**Flow chart diagram 1: *Sampratpti* of *Karnastrava***



In *Shushrut* *Samhita*, *Aacharya* Shushrut described treatment measures for *Karnastrav* are *Shirovirechan, Dhupan, Puran, Pramarjan*, and *Dhavan*.[[12]](#endnote-12) *Guggul Dhupan* has been mentioned by Achary Sushrut for *Karnastrava* as *Guggal* having properties like *Ushna, Tikshna Guna,* and *Vatshamak, Kaphshamak, Shothhar, Jantughna, Vrinashodhan, Vrinaropan,* and *Vedanashaman* this actions are beneficial in the treatment of *Karnastrava*. For *Karnastrav,* *Karna* *Dhupan* is the choice of treatment. Acharya Charaka had mentioned that the treatment of *Karnasrava* should be done accordingly to the *Vrana kriya* (wound management).[[13]](#endnote-13)

So In present case Study, *Karnastrav* considered as *Vran* in the Tympanic Membrane and for *Vran* *Dhupan* *Rakshoghna Dhup* has been described. So *Rakshoghna Dhup* drugs can be taken as *Karna* *Dhupan* in *Karnastrav*.

**AIM & OBJECTIVES:**

* To evaluate the efficacy of *Rakshoghna Dhup Karna Dhupana* and internal Medicines in the management of “*Karnastrava*” w.s.r to ASOM by a single case study.

**CASE** **REPORT**:

 A female patient age of 44 year came in Shalakya tantra OPD presented With chief complaints of *Karna Gauravata* (Heaviness in both Ears), *Karna Shul* (Mild Pain), *Karna Strav* (Purulent discharge) from both Ear Associated with *Karna Shravan Alpata* (Reduced hearing), *Karna Avidhyaman Dhvani Shruti* (Ringing sound), *Karna Kandu* (Itching). *Nasa Strav* (Watery discharge from nose) and *Shiro Gauravta* (Heaviness of head) in recurrent condition.

**Table No. 2: Sign And Symptoms with Durations.**

|  |  |  |
| --- | --- | --- |
| **SR. NO.** | **SYMPTOMS** | **DURATIONS** |
| 1 | *Karna Gauravata* - Heaviness of Both Ears  | 1 month  |
| 2 | *Karna Shul* - Mild Pain | 1 month  |
| 3 | *Karna Strav -*Ear Discharge | 1 month  |
| 4 | *Karna Shravan Alpata -* Hearing Loss | 15-20 days  |
| 5 | *Karna Avidhyaman Dhvani Shruti -* Tinitus  | 15-20 days  |
| 6 | *Karna Kandu* - Itching  | 15-20 days  |
| 7 | *Nasa Strav* - Nasal Discharge  | 1yr (Recurrent) |
| 8 | *Shiro Gauravta* - Heaviness Of Head  | 1yr (Recurrent) |

**PAST HISTORY:**

Patient having Rhinitis and Heaviness of Head in recurrent condition since last 1 year.

The patient received oral antibiotics and analgesics medications since 15 days but only get relief as long as the effect of the medicines lasts and symptoms occurs intermediately

**ON EXAMINATION**:

* **EAR:** There was Creamish Yellow Discharge, non-foul smelling Moderate Pulsatile discharge was seen in Both External Auditory Canal. A small central perforation in the Antero inferior quadrant in the left tympanic membrane and a Medium size central perforation in the Right Tympenic membrane.
	+ **Hearing Test:** Rinne test was negative. Weber test was lateralized to affected side and ABC was normal. Which shows Mild Conductive Deafness.
* **NOSE**: There was Mild inflamed in Nasal Mucosa. Left side Nasal septum Deviation.
* **THROAT:**  Ant. And Post. Pillar and Posterior Pharyngeal Walls Shows Mild Congestion.

**GENERAL EXAMINATION:** The *Sharirik Prakriti* of the patient was *Pitta-Vataj* and she had *Mrudu Kostha* (Based on bowel habit), *Madhyam Bala* (Physical strength), with *Madhyam Satva* (Psychological strength).

**MATERIAL & METHODS:**

After proper examination, the *Puyastrava* was cleaned with ear buds then the *Dhupan* is given by keeping the *Rakshoghna* *Dravya* on hot pan (*Tava*) and it is covered with aluminium funnel and advised to take continuous *Dhupan* two times a day for fifteen days. Before taking *Dhupan, Strava* (discharge) was cleaned every time with Cotton *Varti*. *Dhupan* was given in both ears for 3 to 5 minutes in each. After *Dhupan* Eustachian tube cleaned with Cotton *Varti*.

**PLAN OF TREATMENT:**

**Table No. 3: Prepared Plan of Ayurved Medicine.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.No.** | **Type of Drug** | **Drug** | **Dose** | **Anupana/****Sahpana** |
| 1. | Compound Drug | *Sitopaladi Churna -*3gm*Haridra Churna –* 2gm*Trikatu Churna –* 500mg | 5 gm Twice a day After Meal | Honey |
| 2 | Single Drug  | *Yastimadhu Ghanvati* | 3-4 Tab. in whole day for *Chusanarthe*. |   ----- |
| 3 | Single Drug | *Sarivadi Vati* | 2 tab. Twice a day After Meal | *Ushnodaka* |
| 4 | Single Drug | *Gandhak Rasayan* | 2 tab. Twice a day After Meal |  |
| 5 | *Karna Dhupan**(Ear Fumigation)* | *Guggalu, Sarjras, Agru,* *Vacha, Lavan Nimb Patra,* *Gaur Sarshap, Ghrit.* | Twice a day |  ------ |

***Pathya Apathya*:**

**Table No. 4: *Pathya* and *Apathya* Chart**

|  |  |  |
| --- | --- | --- |
|  | ***Pathya***  | ***Apathya*** |
| ***Aahara*** | * **Grains**: One Year Old Grains, *Kulatha*
* **Pulses**: *Mung, Urad*
* **Vegetables**: *Kankoda, Sarsav, Mulak, Lahsun,*
* **Green** **Vegetables**: *Spinach, Fenugreek, Suva, Matla*
* **Fruits**: *Badar*, *Dadim*, *Kele*, *Mosambi*, *Amla*, *Nimbu*, *Harde*.
* **Milk** **Dish**: Cow Ghee – Milk, Butter
* **Others**: *Saindhav*, *Puran Madhu*, *Marich*
 | * **Pulses:** Chickpeas, Peas, *Samo*
* Contraindicated food – All sour fruits with Milk – Meat – Onion – Garlic – Radish – Carrot – Jaggery – With Basil, Ginger,

Curd with – Radish, Sesame, Garlic, Urad, Milk, Jaggery with– Sesame, Banana, With Ghee Equal Parts Honey**Other**: Curd, Fish, Sour – Spicy Food |
|  | ***Pathya***  | ***Apathya*** |
| ***Vihara*** | * Drink cow's ghee mixed with fresh milk.
* Keeping silence
* Rest
* *Karna Abhyanga*: Massaging the ears with Luke warm oil.
 | * Consumption of dew point
* Bathe by dipping/pouring water on the head.
* Ear bud put In the ear
* Cleaning teeth with *Dantun*
* Anger, grief
* Anxiety
* Cool water / atmosphere
* Fasting
* More exercise
* Alcohol consumption
 |

**FOLLOWUP**:

The patient came regularly in interval of 7 days for 1 month. After completion of treatment there was no recurrence for 3 month, General health of patient get improved by supporting treatment.

**RESULT**:

A single study was conducted to evaluate the efficacy of *Rakshoghna Dravya Dhupana* in the management of *Karna Strav* with symptoms such as *Karna Gauravata* (Heaviness in both Ears), *Karna Shul* (Mild Pain), *Karna Strav* (Ear discharge) from both Ear, Associated with *Karna Shravan* *Alpata* (Reduced hearing), *Karna Avidhyaman Dhvani Shruti* (Ringing sound) *.* The *Rakshoghna Dravya Dhupana* given to the patients for a 15 consecutive days. After 15 days, the results showed that the ear discharge disappeared and frequency and severity of the symptoms had significantly reduced. Moreover, there was also an improvement in the general health and well-being of the participants. After taking treatment for 3 months there was no recurrence of *Karna Strav*.

The patient’s progress has been noted throughout the treatment with specially designed gradation pattern and Assessment of Classical signs and symptoms in each follow up for 1 month and after 3 months noted in table format which is mentioned below:

**Table No. 5: Gradations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grades****Features** | **0** | **1** | **2** | **3** |
| **Ear Discharge**  | Absent  | Mild – scanty secretion near the tympanic membrane | Moderate – secretion irritating in the ear canal | Profuse – secretion coming out of ear canal |
| **Pain** | Absent  | Not continuous | Continuous but not incapacitating normal activity | Continuous throughout and incapacitating normal activity |
| **Itching** | Absent  | Occasional  | Continuous Mild  | Continues Sever |
| **Hearing Loss** | Absent  | Unable to hear the whispering voice | Unable to hear normal voice | Unable to hear a loud voice |
| **Tinitus**  | Absent  | Present |  ------------ |  ------------ |
| **Heaviness**  | Absent  | Present |  ------------ |  ------------ |
| **Nasal Discharge** | Absent  | Present |  ------------ |  ------------ |

**Table NO. 6: Assessment of Classical signs and symptoms in each follow up:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **COMPLAINTS** | **B.T** | **7days**  | **15 days** | **1 Month** | **3 Months**  |
| *Karna Gauravata* - Heaviness of Both Ears  | 1 | 1 | 0 | 0 | 0 |
| *Karna Shul* - Mild Pain | 3 | 2 | 1 | 0 | 0 |
| *Karna Strav -*Ear Discharge | 3 | 2 | 1 | 0 | 0 |
| *Karna Kandu* - Itching  | 2 | 1 | 0 | 0 | 0 |
| *Karna Shravan Alpata -* Hearing Loss | 2 | 1 | 1 | 1 | 1 |
| *Karna Avidhyaman Dhvani Shruti -* Tinitus  | 1 | 1 | 1 | 1 | 1 |
| *Nasa Strav* - Nasal Discharge  | 1 | 1 | 0 | 0 | 0 |
| *Shiro Gauravta* - Heaviness Of Head | 1 | 1 | 1 | 0 | 0 |

The results of the study suggest that *Rakshoghna Dravya Dhupana* can be used as an effective treatment for recurrent *Karna Strav* with associated symptoms. However, further research on a large scale is needed to authenticate the findings of this study.

**DISCUSSION**:

 According to Ayurveda classics, *Vata Dosha* is responsible for *Karnastrava* in which *Strava* is the main symptom, and one of the most important features of *Ruksha sweda* is dryness. Hence in *Karnastrava* the *Karna Dhupan* is a choice of treatment because it not only dries up the *Strava* but also creates the unfavourable condition for the growth of microbes. The fumes of *Dhupana* may bring about the sedative effect and dries up the *Strava*[[14]](#endnote-14). Heat also helps in vasodilatation and increased blood circulation thereby helping in better absorption of drugs and healing. *Rakshoghna* *Drvavya* properties described to understand its probable actions in management of *Karnastrava*.

 **Table No. 7: *Rakshoghna Dhup Dravya* Properties:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Drug** | ***Rasa*** | ***Guna*** | ***Virya*** | ***Vipak*** | ***Doshghnata*** | **Remarks** |
| 1 | *Guggalu[[15]](#endnote-15)* | *Katu,Tikta, Kashay* | *Ruksha, Laghu* | *Ushna* | *Katu* | *Vata - Kapha* | *Bhagna Sandhan Krut* |
| 2 | *Sarjras[[16]](#endnote-16)* | *Tikta Kashya* | *Guru* | *Shit*  | *Katu* | *Vata – Pitta* | *Vran Shodhak-Ropak, Bhagna Sandhan Krut, Vedana Sthapak* |
| 3 | *Agru[[17]](#endnote-17)* | *Katu, Tikta* | *Laghu, Tikshna* | *Ushna* | *Katu* | *Kapha - Vata* | *Karnaakshi Roga Nashak , Shitprashaman* |
| 4 | *Vacha[[18]](#endnote-18)* | *Katu , Tikta* | *Katu , Tikshna* | *Ushna* | *Katu* | *Vata* | *Shulaghni* |
| 5 | *Nimbpatra[[19]](#endnote-19)* | *Tikta , Kashay* | *Laghu* | *Shit* | *Katu* | *Kapha- Pitta* | *Vran Shodhak – Ropak* |
| 6 | *Gaur Sarshap[[20]](#endnote-20)* | *Katu , Tikta* | *Tikshna , Ushna* | *Ushna* | *Katu* | *Kapha – Vata* | *Kandhu Nashak* |
| 7 | *Saindhav Lavan[[21]](#endnote-21)* | *Lavan* | *Laghu, Snigdha, Sukhsma* | *Shit* | *Madhur* | *Tridosha* | *Vran Shodhak – Ropak* |
| 8 | *Ghrit[[22]](#endnote-22)* | *Madhur* | *Saumya, Mrudu* | *Shit* | *Madhur* | *Vata - Kapha* | *Sarva Snehanam Uttamam,Alpa-Kledkarak* |

This *Rakshoghna* *Drvavya* drugs also having Anti-Fungal, Anti- Bacterial, Anti-Inflammatory, Anti-Septic and Anti-Spasmodic propertiesthat helps to pacify the *Dosha* of *Karna* and helps to reduce discharge.

Probable Mode of Actions of Internal medications:

* *Sitopaladi Churna[[23]](#endnote-23), Haridra Churna[[24]](#endnote-24), Trikatu Churna[[25]](#endnote-25)* combine work on *Tridosha* And helps to reduce Inflammation and pain also reduce Nasal Discharge and heaviness of Head.
* *Yastimadhu[[26]](#endnote-26)* *Ghanvati* having *Madhur* *Rasa*, *Guru* and *Snigdha* *Guna* , *Madhur Vipaka* and *Sheeta Virya* and *Sandhaniya*, *Kandughna* which Helps internally to treat *Nasastrav* and *Karna kandu*. Also having Anti-inflammatory, Anti-Viral, Anti Allergic, healing properties which helps to subside the Inflammation and congestion of nose and Throat.
* *Sarivadi Vati[[27]](#endnote-27)* acts on *Vata*, *Pitta* and *Kapha Doshas* and useful in tinnitus, ear infection and chronic respiratory diseases.
* *Gandhaka Rasayana[[28]](#endnote-28)* is *Kandughna* Properties and bestowed with powerful healing properties including Analgesic that reduces tenderness and pain of soft tissues.

This medications manage the symptoms of *Karnastrava* and other associated symptoms internally that help to reduce *Karna Gauravata* (Heaviness in both Ears), *Karna Shul* (Mild Pain), *Karna Strav* (Ear discharge) from both Ear, *Karna Shravan* *Alpata* (Reduced hearing), *Karna Avidhyaman Dhvani Shruti* (Ringing sound)*.* These medications are derived from natural herbs and minerals that help restore balance to the body, mind, and spirit. The herbs and minerals are combined in specific proportions and taken in the form of tablets, powders. These medications help regulate the immune system, reduce inflammation, and reduce pain. They also help improve overall health and well-being.

**CONCUSION:**

The results of the study on *Rakshoghna Dravya Dhupana* with internal medications

For the management of *Karna Strava* have been extremely encouraging. The study demonstrates that *Rakshoghna Dravya Dhupana* is an effective treatment for the management of *Karna Strava*. Furthermore, it is easy to use and does not require any complicated preparation. Considering all aspects of *Karnastrava* External Treatment and Internal formulation aid in the management of *Karna Strava*, It has been observed that it helps in reducing the symptoms of the discharge, perforation, and impaired hearing. It was also found to be helpful in improving the overall quality of life of the patients suffering from this condition.

The results also suggest *that Rakshoghna Dravya Karna Dhupan* should be included in the treatment protocols for *Karna Strava* as an adjuvant treatment. The study also revealed that the use of this *Rakshoghna Dravya Karna Dhupan* is safe, easy to prepare and does not cause any adverse reactions.

During the therapy period, *Pathya* and *Apathya* (dietary regime) should be strictly followed. *Pathya* and *Apathya* are two important components in the treatment of any disease. *Pathya* helps to prevent the onset of any disease and maintain good health, while *Apathya* can aggravate the condition and further complicate it. *Pathya* includes the intake of nutritious food, taking proper rest, avoiding over-exertion, and engaging in activities that help in relaxing the body and mind. *Apathya* includes eating unwholesome food, lack of proper rest, over-exertion, and indulging in activities that can lead to physical and mental stress. *Pathya* and *Apathya* are important in the management of any disease, and it is important to adhere to these principles in order to maintain good health and prevent any further complications.

With all of the aforementioned information, it is possible to conclude that Ayurveda has a quality approach to alternative care of ASOM through the use of oral medications, topical drugs, and cleansing techniques. The mode of treatment was found to be cost effective, safe and ease to implement.

Thus, *Rakshoghna Dravya Dhupana* can be recommended as a safe and effective Ayurved treatment remedy for the management of *Karna Strava*.

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