



# COMPREHENSIVE AYURVEDIC CARE FOR EYE AND ENT DISORDERS

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## ABSTRACT

The shira or head is the most important organ among all the vital organ of body because it resides life along with sense faculties or gyanenindriyas. Shalaky tantra is one among ashtanga ayurveda, dealing with urdhvajatrugata rogas i.e. diseases occurring above the clavicle which includes shira, netra, karna, nasa and mukha. The chaotic lifestyle, faulty food habits, reduced physical activity, over exertion at work, subjection to various environmental changes, increased screen time and over exposure to radiations due to scientific advancement in technology which creates a stressful never ending vicious cycle which has precarious effects on the sense organs. According to Ayurveda "Sarvendriyanam Nayanam Pradhanam" eyes are the principal organ providing sight. The vital information about manifestation of various eye diseases if accounted for, can help in preventing and treating the leading causes of blindness. It is prerequisite to identify the cause then treat the ailment for reimposing the health of indriyas. Ayurvedic management of ophthalmic & ENT disorder manifesting via eye, ear, nose, oral route aims to pacify the vitiated doshas by various kriyakalpa procedures, shodhan and shaman chikitsa which alleviate the symptoms and provides strength to sense organs or indriyas & inflicts better quality of life to individual.

**KEYWORDS-** Kriyakalpas, Urdhwajatrugata roga, Gyanenindriyas, Srotas, Panchkarma, Netra rogas

## INTRODUCTION

Shalaky tantra is one of the fully fledged branches of Ashatanga ayurveda which deals with urdhwajatrugata roga i.e. diseases occurring in supraclavicular region which includes ophthalmology and otolaryngology. Shira has been described as uttamangatvam where prana and panchagyanendriyas reside<sup>2</sup>. It is also included as one among the trimarma and its injury is proved to be fatal. The Netra or eyes behold the most prominent place among all other gyanendriyas. Without sight this world seems like an abyss. Nasa has been described as Nasa hi Shirsodwaram<sup>3</sup> door or gateway to Shira which makes it an important sense organ alongside karna which providing the function of hearing. All these sense organs act simultaneously to help the individual to learn and thrive in accordance with the environment. All the urdhwajatrugata rog are treated on the ayurvedic principle of sanshamana and sanshodhan which is achieved by various kriyakalpa and panchkarma procedures and shastra & anushastra karma.

## MANAGEMENT OF NETRAROGAS (OPHTHALMIC DISEASES)

Acharya Charaka explained 4 types of eye diseases on the basis of doshas that are Vataja, Pittaja, Kaphaj, Sannipataja. Acharya Nimi explained 76 types of netraroga<sup>4</sup> netraabhisyaanda, adhimantha, Arma, netra shukra, nimesha. The treatment aims at pacifying the potential vitiated doshas in the particular eye disease and is achieved by undergoing various kriyakalpa procedures.

The word kriya means therapeutic procedures and kalp means specific medicinal formulations. It is a bahiparimarjana chikitsa & has several benefits over oral administration of drugs. Acharya Sushruta has mentioned 5 types of kriyakalp<sup>5</sup> in Su. Uttarasthan 18 that are Tarpana, Putpaka, Seka, Aschytona, Anjana. Acharya Sharangdhar has explained 2 more types – Pindi and Vidalaka<sup>6</sup>.

**TARPANA**<sup>7</sup>-It is the procedure of retaining the medicated ghee or oil over the eyes for a specified time period. The liquified medicated oil is poured inside the wall made around the eyes by Masa flour dough and the tip of the eyelashes are made to submerge on the medicated ghee or oil. The Sneha dharana kala (matrakala) is set in accordance with the causative doshas and the site of the disease in Akshimandala. The retained drug in the eyes has more contact and absorption time which in turn crosses corneal epithelium barrier due to its lipophilic activity thus increasing the bioavailability of drug. It is indicated in Adimantha (glaucoma), Timir, Abhisyaanda, Shushkakshipaka (Dry eye), Jeeran netraroga.



**PUTPAKA<sup>8</sup>**- Its procedure is similar to that of *tarpana* with only difference in the preparation of medicine and duration. In this the extract is obtained from heating paste of plants, animal flesh by *putpaka vidhi*. The same extract being the suspension of fat-soluble & water-soluble contents is poured and retained over the eyes has better penetration rate through corneal epithelium than *tarpana* due to cumulation of its lipophilic and hydrophilic property. It can be done after *tarpana* or independently.

**SEKA<sup>9</sup>**- It involves continuous pouring of *dravaushadh* or medicated liquid solution in a streamline manner into partially opened eye from a height of *four angula* for specific time period. It is usually indicated in acute phase of eye disease for dosha *pachana and shaman*. Indications- *Timira, Abhishyanda, Netrashoola, Shushkakshipaka*.

**ASCHYOTANA**-This procedure involves instilling few drops of aqueous extracts or solution of drugs into the open eye from a height of *two angula*. It is mentioned as *aadyaupkrama* meaning the first line of treatment in eye disorders. Indicated in acute phase such as *Abhishyanda, Netrashoola, Netrapaka, Pothki, Parvani, Upnaha*. The active constituents present in the aqueous solution are absorbed through the conjunctiva and cornea but most of it is drained through the nasolacrimal duct promptly providing very little tissue contact time.

**ANJANA<sup>10</sup>**-It is application of collyrium or medicinal pastes into the inner side of lower lid or the conjunctival fornices with a *Anjana shalaka* (applicator). *Anjana* is prepared out of amalgamation of minerals, metals (like arsenic, lead, antimony), herbs and animal matter. Usage of *anjana* is prohibited until the acute inflammatory symptoms does not subside. It should be used only when full manifestation of each dosha is present (means the body should be free from *ama dosha lakshana* like redness, swelling, congestion) and localised in the eye. It potentially has *lekhana* properties and has more bioavailability due to more tissue contact time. Indication- *Jeeran netraroga, Pishtak, Arma, Netra shukra*.

**PINDI<sup>11</sup>**-The lukewarm paste of drugs is applied in the form of poultice on the closed eye for local sudation. The medicine is absorbed through the skin of eyelids resulting in vasodilation and drainage of toxins from the site due to poultice application. It is indicated in early stages of eye diseases like *Abhishyanda*.

**VIDALAKA<sup>12</sup>**- It is the application of paste of various drugs over the eyelids except the eyelashes. The thickness of the paste is same as that of *mukhalepa* and the paste is kept on the eyelids until it starts to dry, Indications-inflammatory conditions of eyelids, itching, burning sensation, excessive lacrimation. The absorption is similar to *pindi* and provides additional effect of reduction in IOP by vasodilation and aqueous drainage. The various drugs extensively used in *netraroga* are *Triphala, Purnava, Yastimadhu, Daruharidra, Rasna, Manjistha, Lodhra, Haridra, Dashmool, Shigru* etc.

*Shastrakarma* is indicated in various *urdhwajatrugata rogas*. According to *Acharya Sushruta* all surgical procedures are categorised into 8 types<sup>13</sup>. *Chedana* (Excision), *Bhedana* (Incision), *Lekhana* (Scraping), *Vyadhana* (Puncturing), *Eshana* (Probing), *Aharana* (Extraction), *Visravan* (Draining), *Seevan* (Suturing)

## MANAGEMENT OF ENT DISEASES

**SHIROBASTI<sup>14</sup>**-It is the procedure in which medicated oil is retained on the head with the help of *shirobasti kosha* (cap) which is made up of animal skin with *12 angula* height & size is adjusted according to the circumference of the head. Its *dharana kala* (duration) is 10 times that of *tarpana*.

**SHIROPICHU**- *Sneha* dipped cotton is placed on the head for stipulated period of time.

**SHIRODHARA**-It involves continuous dripping of medicated oil in streamline fashion over the head and forehead. It is indicated in evening time. The *Sneha* after being retained has more tissue contact time & is absorbed through scalp and in turn acts as nourishment source for the *shirah* (head) and leads to mitigation of all the *doshas* in *urdhwajatru* (supraclavicular region). These all are highly recommended in *vataja shiroroga, shira toda, daha, timir, insomnia, Ardita, Karnashoola, Hanugraha*, to pacify aggravated *vata doshas*, overall soothing effect, nurturing hairs & scalp.

**KARNAPOORAN<sup>15</sup>**- Local massage and to sudation to area around the auricle followed by instilling *taila, swaras* in the ear canal is known as *karnapooran*. This protocol mainly acts on vitiated *vata* which is the key factor in most of the ear diseases manifesting as pain, ringing sound, degenerative changes. The *vatahara* property of *taila* and drugs used in *karnapooran* strengthens the nerves in the ear, removes the obstruction in *karnavha srotas* (minute channels) and aids in increasing hearing function of the ear. Duration in *karna roga* -100 *matra*, *kantha roga* – 500 *matra*, *shiroroga*- 1000 *matra*. Indications- *Karna nada* (tinnitus), *Badhriya* (deafness), *Karna shola, Krimikarna*. Widely used drug for *karnapooran*- *Bilvaadi taila, Kshar taila, Shambuka taila*.



**KARNA DHOOPAN**<sup>16</sup>- It is the method of aural fumigation by medicated dhooma created by burning *Guggulu, Agru, Sarshapa, Vacha, Ghrita* which has anti-inflammatory and antimicrobial action. Indicated in *Vataj Karnashoola, Badhriya (deafness), Karna nada (tinnitus), Karnasrava, Krimikarna, Putikarna*.

**KAVALA & GANDUSHA**<sup>17</sup>-These are ancient ayurveda method of maintaining oral health and hygiene by retaining *Sneha (taila), kwath, swaras* in the mouth (*gandusha* or oil pulling) and holding and moving the *kalka dravyas* to and fro in the mouth (*kavala*). The drug is absorbed by sublingual and buccal mucosa due to its permeable nature and high vascularity which enhances the bioavailability and fast systemic delivery of drug. It is extensively used in mouth ulcers, bleeding gums, gingivitis, halotosis, tonsillitis, pharyngitis, dryness of throat, all other *mukha roga, karna & shiroroga*. It strengthens teeth, gums, prevents plaques, anti-inflammatory action, tooth sensitivity and maintaining sustained oral dental health.

**PRATISARANA**<sup>18</sup>

Local application and massaging of oral mucosa and gums by churna, medicinal paste (*kalka, raskriya*) with the help of finger / *krapasa kritoshani shalaka* (applicator) is termed as *pratisarna*. The *vrana ropana* property of drugs induces increased salivation, antimicrobial activity which leads to flushing out of all the toxins from oral cavity and healing of the oral tissue. Majorly used drugs are *triphala, mulethi, daruharidra, tankan, sphatika, saindhava lavana*.

Indicated in all types of *danta, jihvagata, sarvasara mukharoga* like mouth ulcers, bleeding gums, gingivitis, glossitis etc.

**DHOOMPANA**<sup>19</sup>

Part of the vitiated *Kapha* situated in the head is effectively eliminated by *Dhoompana*. It is to be used twice a day after *Nasya karma*. Smoke emitted from the herbal twig is inhaled through one nostril at a time, closing the other and it is done alternatively. Every time the inhaled smoke is to be expelled through the mouth. *Dhoompana* provides firmness to the teeth, clarity of mouth and pleasant smell. It prevents loss of taste and exudations of the oral cavity. Indicated in *Kasa, shwasa, mukhavairasya, shiroga, karna & akshishoola, abhishyanda*.

**SHATKARMA IN URDHWAJATRUGATA ROGAS**

*Shatkarma* is the set of six yogic cleansing techniques- *Neti, Dhauti, Basti, Nauli, Kapalabhati, Tratak*. *Neti karma* includes *jala and sutra neti*. It has been proven effective in sinusitis, allergic rhinitis, headaches, eye straining, watering & heaviness in eyes by expelling out all the mucus & toxins and thorough cleansing of the *urdhwanga*, removing the nasal obstruction, improving visual acuity, and preventing the reoccurrence of disease. *Dhauti & Kapalabhati* is helpful in asthma and respiratory disorders. *Tratak* is effective in eye diseases like myopia, strabismus, astigmatism by improving visual and cognitive power. *Basti & Nauli* are beneficial in *vata* vitiated diseases & digestive disorders.

**PANCHKARMA IN URDHWAJATRUGATA ROGAS**

*Panchakarma* also known as *shodhan chikitisa* is the pioneer in management of *urdhwajatrugata rogas*. It includes the *Poorvakarma Snehana and Swedana*. The *Pradhan karma* includes *Vaman, Virechana, Anuvasaan & Niruha basti and Nasya, Raktamokshana*. All the *panchkarma* therapies should be performed with utmost care and vigilantly observing the *samyaka, ayoga, atiyoga lakshanas*.

**Table :Panchkarma according to involvement of Doshas in Urdhwajatrugata roga**

<b>Dosha Predominance</b>	<b>Treatment</b>
<i>Vata</i> predominant disease	<i>Snehana Basti, Nasya</i>
<i>Pitta &amp; Rakta</i> predominant diseases	<i>Virechana and Raktamokshana</i>
<i>Kapha</i> predominant diseases	<i>Vaman, Tikshna Nasya</i>

**Snehana** is of 2 types *Bahya snehana* is done by massaging the oil like *Tila taila, Bala taila* for oleation of the body. *Abhyantra snehana* is done by *ghrita pana* like *Jeevantyadi ghrita, tilwaka ghrita, Triphala ghrita*. **Swedana** by decoction of *vatashamak dravya*.

**Vamana**<sup>19</sup>- In this procedure the vitiated doshas (*kapha* followed by *pitta*) are expelled out by the process of emesis through mouth and is indicated in *Kaphaja diseases*.



<b>Roga Adhithana</b>	<b>Vamana Indications</b>
Netra roga	Pilla roga Kukunaka (done with Pippali, saindhava, Yastimadhu, Sarsapa kalka) Vartma lekha (snehana followed by vaman & virechana) Sashofa & Ashofa akshipaka
Karna roga	Karna kandu and krimikarna , Karna vidradhi , Karna nada & Badhriya , Kaphaja karnashoola
Nasa roga	Kaphaja pratishaya, Apeenasa, Putinasa, Urdhwagata raktapitta
Mukha roga	Upkush and Putimukha, Kaphaja Sarvasra roga
Kantha roga	Rohini & Kaphaja galganda
Shiro roga	Kaphaja shiroroga

**Virechana**<sup>20</sup>-Netra is the seat of *alochaka pitta* hence to pacify the aggravated *pitta* and eliminating toxins from the *netravaha srotas*. *Virechana* (purgation) is the most crucial *shodhana karma* in ophthalmic disorders like *Akshipaka* (with decoction prepared from *Drakshya, Haritaki & Trivrita*), in *Vataja Abhishyanda*. and *Adhimantha Virechana* is indicated followed by *basti*.

<b>Roga Adhithana</b>	<b>Virechana Indications</b>
Karna roga	Sneha Virechana with Erand taila in Karna shola, Karna nada, Karna shweda & Badhriya.
Nasa roga	Pittaja pratishaya, Raktaja, Sannipataja nasa roga, urhwagata raktapitta.
Mukha roga	Pittaja mukpaka, Pittaja & Kaphaja Sarvasara mukhroga.
Shiro and kapalgata roga	Suryavrat, Ardhavabhedaka, Anantvata, Indralupta, Khalitya & Palitya

**BASTI**<sup>21</sup>- It is the principal treatment in *vataja* diseases and involves introducing *Sneha, Ksheera, Kashaya* etc to rectum or colon through anus. Types- *Anuvasana, Niruha, Yog, Kala, Matra basti*. The *basti dravya*, on reaching the *pakvashaya* the spreads in body through micro & macro channels, carrying out *trisdosha shamak* action .

<b>Roga Adhithana</b>	<b>Basti Indications</b>
Netra roga	Abhishyanda , Adhimantha. Timir
Shiro roga	Vataja , Pittaja, Kaphaja shiroroga, Ardhavabhedaka, Anantvaat, Suryavrat

**NASYA**<sup>22</sup>- Process of the administering *sneha (taila, ghrita), swaras , kashaya, churna, dhooma* by nasal route. The drug administered through nostrils reaches the *sringatak* marma & spreads in the *murdha* (brain), *netra* (eye), *shrotra* (ear), *kantha* (throat) and scrapes out all the morbid *doshas* from the supraclavicular region. Since the olfactory mucosal surface is in direct contact with central nervous system. The drug is absorbed through paracellular space of olfactory mucosa into lamina propria. From lamina propria, it is transported through perineural space to subarchnoid space hence directly reaching to brain tissue. The vitiated *doshas* situated in *shirah* are completely eliminated by this procedure. Indicated in individuals of 7 to 80 yrs of age. It is the most favourable therapeutic procedures in *urdhwajatrugata vikaras*.

<b>Roga Adhithana</b>	<b>Nasya indications</b>
Netra roga	Sushakshipaka, Avrana shukra, Sasofa & Asofa akshipaka, Timira, Balasgrathith etc
Karna roga	Karna shola, Karna srava, Putikarna, Krimi karna
Nasa roga	Apeenasa, Putinasa, Nasanaha , Nasa sosha, Pratishaya, Urdhwagata raktapitta
Mukha roga	Galashundika, Danta veshta, Talu shosha, Sheetada, Pittja jihvakantak, Upkusha, Upjihivika
Kantha roga	Vataja & Kaphaja rohini , Kaphaja galganda
Shiro roga	All types of shiroroga, Khalitya and Palitya

**RAKTMOKSHANA**<sup>23</sup> is considered as *Ardhachikitsa* in *Shalakra tantra* it is done through *Siravyadhana*-The vein in the frontal area, outer canthus, inner canthus or near the diseased site is punctured for letting out vitiated *Rakta* and *Jaloukavacharan*-Impure blood & toxins are sucked out is by applying leech to the site of the disease<sup>24</sup>. It modifies capillary circulation hence maintains the blood pressure, acts as immunomodulant & anti inflammatory action, purifies blood by expelling out aggravated *Rakta dhatu* and *Pitta dosha*. Indication- Age criteria is 16 to 70 years of age.



<b>Rog Adhithana</b>	<b>Raktamokshana Indication</b>
Eye disorders	<i>Puyalasa, Savrna shukla, Pittaj &amp; kaphaj timir, Abhishyanda and Adhimantha, Pilla roga.</i>
ENT disorders	<i>Badhriya (siravedhana done near the ear), Rohini, Eka vrinda, Kantha shaluka, Vataj and Kaphaj &amp; Medoja Galaganda, Krimidanta, Soushira, Sheetada, Dantaveshtha, Upajihwa, Anantavatta, Suryavarta, Ardhavabhedaka, Pittaja Shiroroga.</i>

**Contraindication**<sup>25</sup>- very young, old, emaciated and exhausted, anaemic, lactating mother, pregnant women.

*Sanshaman chikitisa* involves use of various herbal, herbo-mineral formulations and *rasaushadhis* orally like *Abhrak Bhasma, Saptamrita lauh., Yashada bhasma, Chandraprabhavati, Vatachintamani rasa, Praval panchamrit, Rasrajras, Kharva pishti* are used in treating the ophthalmic and ent disorders such as cataract, glaucoma, macular degeneration, sinusitis, allergic rhinitis, hearing loss, CSOM, epistaxis.

## DISCUSSION

*Kriyakalpas* & all other therapeutic ENT procedures mentioned in ayurvedic texts has a sole aim of mitigating all the aggravated *doshas*, eliminating toxins from supraclavicular region, nurturing the head and all the *gyanendriyas* residing in it. This aim is achieved by maintaining proper concentration of the drugs used, increasing tissue contact time which increases absorption rate instantly, transportation of drug molecules into the minute channels (*Srotas*) of all the *indriyas*, expulsion of all the toxins from the channels which alleviates the symptoms of *Urdhwajatu vikaras*.

## CONCLUSION

*Shalaky tantra* basically deals with diseases residing in *urdhwajatu* involving all the sense organs except skin. These sense organs play a vital role in gaining knowledge of the surrounding and peaceful coexistence with other individuals. The dosha imbalance and *srotas avrodha* (obstruction) leads to manifestation of various ophthalmic and ent disorders which adversely affect the quality of life of an individual by hampering the special sense of vision, olfaction, taste, hearing & vestibular function. Various marmas like *vidhura mara* (behind the ear), *phana marma* (inside the nose), *avarta* (located above & middle of the eyes), *apanga* (on the side of outer canthus), *shankha* (temple region), *utkshepa* (above the temporal region), *stapani* (in glabellar region between the eyebrows), *seemanta* (cranial sutures), *sringaataka* (deeper in the nose), *adhipathi* (located at external occipital protuberance) are the located in head, injury to these vital spots or *marmas* leads to serious disability (neurological, motor and sensory impairments) and even death<sup>26</sup>. Hence it is necessary to protect the *gyanendriyas* and *marmas* from injury and following all the *swasthviritta* (*dincharya & ritucharya* related to netra, karna, nasa, mukha), *pathya- apathya* (ahara & vihara) protocols mentioned in ayurvedic texts for maintaining eminent *dosha & dhatu* balance, timely drainage of all the secretions & toxins from the body and exempting individuals from any kind of ailments. Allocation of the drugs is done according to their *veerya, doshahar* and *ropana* properties and prominent manifestation of *doshas* in various ophthalmic and ent disorders. The therapeutic procedures are wisely chosen by the clinician on the basis of *dosha, kala, bala* of patient and (site of disease, type of *doshas* involved etc). All the ocular and ent therapeutical procedures not only provides local symptomatic relief but also ensures the proper absorption and delivery of the potential drug into the target organ eventually treating the root cause of the disease. It also imparts the *Balya* (immunity booster), *Rasayan* (rejuvenation), *Medhya* (increasing brain grasping power) effect by the cumulative action of the drugs and therapies which clearly defines the *Ayurveda proyojana* that is “*Swasthyasya Swasthya Rakshanam and Aaturasya Vikarprasmanam*”<sup>28</sup>”

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