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#### AN INSIGHT INTO NAYANABHIGHATA IN AYURVEDA

Prakruthi G<sup>1</sup>, Hamsaveni V<sup>2</sup>

<sup>1</sup>PG Scholar, <sup>2</sup>Professor,

Dept. of PG Studies in Shalakya Tantra, SKAMCH & RC, Bangalore, Karnataka, India

Email: prakruthikalpana@gmail.com

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#### **ABSTRACT**

'Drushtishcha nastaa vividham jagaccha tamomayam jaayat ekaroopam' – if vision is lost everything will be visible as if covered by andhakara because of tama. For every individual protecting his sense of vision is very important for his existence. Now a day, due to rapid industrialization incidence of injuries is becoming more common and sometimes even life threatening. Acharya Sushruta has contributed more with regards to nayanabhighata and even other acharyas made in the same way by explaining the treatment methodology which signifies the evidence of nayanabhighata since vedic period, as we have a reference of replacement of injured eye with artificial eye in Rigveda. Various treatment methodologies are adopted for the same which was quite elaborative including sashalya netra chikitsa and also treatment based on doshic principles and nidana in our classics. The basic treatment modalities of Shalakya tantra netra chiktsa i.e. kriyakalpas are used extensively to treat nayanabhighata in a vivid manner.

**Keywords:** Nayanabhighata, Chikitsa, Kriyakalpas, Ocular injury.

#### INTRODUCTION

A statement in *Charaka samhita* states "*Nashta drik kudya sannibha*:", implies that even though a man is having all *indriyas* but not the *netra* is just as an insect without any use (*Cha.Su.8/9*). Ocular injuries are now becoming a worldwide major cause of visual morbidity. There are numerous individual reports on ocular trauma. WHO has reported that 55 million eye injuries causing restriction of daily activities, of which 1.6 million go blind every day. Vats *et al.*, have reported the prevalence of ocular trauma to be

2.4% of population in an urban city in India. 11.4% of these are blind.<sup>1</sup>

#### **AIM AND OBJECTIVES:**

To understand the *nidana*, *lakshana*, *Samprapti* and *chikitsa* of *nayanabhighata* explained as per the *Ayurvedic classics*.

#### **MATERIALS AND METHODS:**

Source of data: Literary Source: Classical *Ayurveda* texts and journals to gather information about *nayanabhighata* (Ocular injury).

**Definition of** Nayanabhighata:<sup>2</sup> After explaining kriyakalpas, which are especially meant for sharira dosha nimitta vyadhis, for bahya nimitta vyadhis nayanabhighata pratishedha is explained by Acharva Sushruta.

Nayana is derived from the word- "Neeyate drushti vishayo anena iti", which means the object of perception.

Abhighata is derived from the word "dandadibhir abhihata aaghata:", which means physical assault. But while explaining nayanabhighata, Acharya Dalhana considers both physical as well as psychological causes for Nayanabhighata, i.e., it may be due to murta dravya i.e., dandadaya, or amurta dravya i.e., bhaya, shokadinam.

## Nidana of Nayanabhighata (causes):3,4,5,6,7,8,9

- ❖ Acharya Videha quotes nidanas for abhighata
- Application of strong collyrium for exhausted eyes, exposure to wind, sun, fumes, dust, insect bites, playing water games, night awakening, fasting, exhausted physically, fearful.
- \* Acharya Vagbhata while explaining Upaghataja timira states nidana as:
- Exposure to sunlight, wind, thunders are the causes for traumatic cataract.
- ❖ Acharya Yogaratnakara and Chakrapani states

- Exposure to sunlight, thunders, excessive sudation, fumes, fear and sadness causes injury.
- According to *Shodala* and *Govinda Das*:
- Excessive sudation, exposure to hot objects, fumes, fear and sadness causes eye injury.

Sanghata bala pravrutta vyadhis: It is of two types: Shastra kruta and Vyala kruta.

Bhouthika: It may be caused due to exposure to Surya (sun), Agni (hot objects) or Vidhyut (thun-Doorekshana (seeing far objects), Sukshmekshana (seeing minute objects), Sweda (sudation), Raja (dust), Dhumasevana (fumes), Krodha (anger), Shoka (sadness), Chardivighata (withholding vomiting), Vamana atiyoga (excessive vomiting).

Yantrika abhighata: This is considered as agantuja netra roga nidana.

It is of two types: Sachidra (perforating and penetrating) and Achidra (blunt injuries).

In sachidra type, there will be more severe injury and chikitsa has to be done as explained in shalya karma (surgery).

Sometimes even this may leads to Abhighataja kacha (traumatic cataract).

Rasayanika abhighata: Bhaspa (mist), Dhumra (smog), Kshara (alkalies), ammonia, may cause Krishnamandala shotha (cornea odema) Netrashleshmavarana shotha (conjunctival odema).

#### Samprapti of Nayanabhighata (Pathogenesis):

## Nija karanas (Internal causes): Jagarana, langhanadi karana. Ama formation Tridoshas vikruti Afflicted doshas ascends to the head through siras. Afflicts various patalas of netra. Nayanabhighata. Agantu karanas (external causes): Exposure to Surya, Archi, Agni. Vitiation of *vata* leading to aggravation of *pitta* and *rakta*. Afflicting sthanika dhatus at the site of kha-vaigunya. Results in injury at that particular site.

### Lakshanas of Nayanbhighata (symptoms): 10, 11, 12 According to Acharya Sushruta:

- Samrambha (slight inflammation), Raga (redness), Tumula (constriction), Ruja (pain).
- Reference of inhalation injury: Chakshusho paridaha (burning sensation) and Netra ragata (redness) under dhumopahata lakshanas.

#### **According to Videha:**

Raga (redness), Daha (burning sensation), Toda (pricking sensation), Sopha (inflammation), Paka (suppuration), Gharshadi vedana (foreign body sensation).

Yogaratnakara's view on sashalya netra lakshanas:

There will be *Srava* (secretions), *lohita raji* (congestion) vessels will be affected, there will be difficulty in opening and closing of eyelids.

### Sadhyasadhyata of Nayanabhighata: 13, 14 According to Acharya Sushruta:

- If *Prathama patala* (first layer) is afflicted *Sadhya* (curable).
- If both *Prathama* (first layer) and *Dwitiya* patalas (second layer) are afflicted *Krichra* sadhya (curable with difficulty).
- When all three *patalas* (all the three layers) are afflicted *Asadhya* (incurable).
- If eye ball is *Piccchita* (crushed), *Avasanna* (pushed deep), becomes *Srasta* (lax), *Chyuta* (dislocated), then it is *Yapya* (palliable).
- When pupils are dilated and there is minor degree of redness and blurring of vision, it is to be considered as *Yapya* (palliable) or the cases where the eyeball is situated in its proper place and does not look dirty *Sadhya* (curable).

#### According to Gadanigraha:

- If *Prathama patala* (first layer) is afflicted *Sadhya* (curable).
- If *Dwitiya patala* (second layer) is afflicted *Yapya* (palliable).

• If *Tritiya patala* (third layer) is afflicted – *Asadhya* (incurable).

# Nayanabhighata chikitsa according to different Acharyas (Chikitsa): 15, 16, 17, 18, 19, 20, 21

#### According to Acharya Sushruta:

Nasya (nasal medication), Alepa (external application), Parisechana (irrigation), Tarpana (nourishing therapy), Kshataja shula pathya, Pittaja shula Pathya (should follow instructions mentioned under kshataja shula and pittaja shula).

Drushti prasada janana (which helps to increase vision), application of Snigdha (oleating), Hima (cold), Madhura dravyas (sweet potent drugs)

- Snigdhadi drushti prasada janana vidhi (nourishing eye therapies).
- Kshatajapittajashula pathyamiti Raktabhishyandahita and Pittabhishyanda hita (diet and regimens which are indicated in Pittaja and Raktaja abhishyanda).

If injuries results from *Sweda* (sudation), *Agni* (hot objects), *Bhaya* (fear), *Shoka* (sadness), *Ruja* (pain) same line of treatment has to be adopted.

The above mentioned procedures should be adopted immediately after injury and later on *Abhishyanda chikitsa* has to be adopted according to *dosha anubandha* (depending on *doshas*).

- In case of minor trauma to the eye, the pain rapidly disappears by *Aasyabhaspam mukhaphutkara janitoshnam* (fomentation from the vapours of the mouth).
- In cases where the eyeball is pushed deep into socket, it should be made to bulge out by holding the breath, inducing vomiting, sneezing and pressure over the throat.
- In cases, where the eye ball is protruding from the socket, treatment includes combined deep inspiration and also with *sheetala jala parisheka* (irrigation of the head with water).

#### According to Acharya Vagbhata:

**Treatment for** *Upaghataja timira:* Nourishing therapies, Oleating therapies, cooling therapies, collyrium prepared from Gold and Ghee.

#### According to Acharya Yogaratnakara:

- External application of *Punarnava mula*, *Chandana*; irrigation from breast milk; bloodletting should be advised.
- Shabara madhuka yoga: Shabara and Madhuka should be taken and fried in ghee, boiled with goat's milk. This should be used for irrigation.

#### According to Acharya Chakrapani:

- Eye drops prepared from juice extracted from sprouts of *Itkata* removes eye pain caused by iniury.
- Madhukadya ghritam: Goats ghee cooked with milk along with the kalka of Madhuka, Utpala, Jivaka and Rishabhaka is useful in all types of eye injuries.

#### Common yogas mentioned by different Acharyas:

- According to *Yogaratnakara*, *Shodala*, *Govinda das*, *Chakrapani*: One should advocate sheeta aschyotana immediately.
- According to Yogaratnakara, Shodala, Chakrapani: Recipes to Drushtiparasadana (nourishing eye therapies) should be advocated immediately with oleating, cooling, sweet potency drugs. Eye injured by sudation, hot objects, fear, sadness, pain should be treated similarly.
- According to *Yogaratnakara*, *Govinda das*, *Chakrapani*: In injury caused by external causes nourishing therapies should be given. In the evening *triphala Prayoga* has to be adopted.
- According to Yogaratnakara, Shodala, Chakrapani: Eye drops prepared from powders of Haridra, Mustaka, Triphala, Daru, Sarkara, Madhuka mixed with breast milk removes pain due to eye injury.
- According to *Govinda das, Chakrapani:* After proper examination, the eye should be fomented first with warm cloth followed by *aschyotana* with breast milk. In addition, *Rakta* and *Pitta* hara measures should be adopted.
- According to Acharya Sharangadhara:

**Sarpavishe sanjeevanjanam:** Jayapala seeds macerated with lemon juice for twenty one times and made into a *varti*. This applied as a collyrium with human saliva relieves the effects of cobra poison and restores life to the bitten person.

#### **DISCUSSION**

dosha.

Even though the eye is protected from lids, eye lashes and the protecting margins of the orbit, nevertheless, it can be injured from many ways from means of mechanical, chemical or radiational injuries. The risk of vision loss is the most feared thing and hence calls for immediate management. The incidence is however is increasing in developing countries like India which further demands special intensive care with regards to eye trauma.

*Nasya* is advised as a treatment measure which does the *Shiroshodhana* and imparts clear vision.

The drugs used in *lepas* are absorbed by the *siras* with the help of *brajaka pitta* thus promoting wound healing which is necessary in the case of *abhighata*. *Seka* which is advocated even in the stage of *amavastha* does the *amapachana* and stabilizes the *doshas* which are disturbed after an injury.

Tarpana is advocated in the later stages where there is no ama lakshanas to achieve drushti prasadana. Rakta is vitiated more, raktamokshana is indicated which does shodhana and corrects the vitiated rakta

During the injuries *rakta* and *pitta* are the *doshas* which are more hampered and hence *rakta* and *pitta* hara pathyas, *snighdha*, hima and madhura dravyas are advised to combat the adverse effects from the vitiated *rakta* and *pitta* and helps to soothens the eye.

Jayapala used in sarpavishahara anjana is having vishaghna guna and hence Acharya sharangadhara has emphazised the use of jayapala in the form of anjana which executes its action by entering systemic circulation. Punarnava is used because of its sothahara, vishagna, raktapitta prashamana, vranaropana gunas. Chandana is having dahaprashamana, raktapitta prashamana and is

chakshushya. Yashti madhu is having varna shodhana and ropana guna. Amalaki is having sophaghna, indriyabalaprada, raktaprasadana, dahaprasadana gunas. Haritaki is tridosghna, vrana and shophahara, indriyaprasdana and indriyabalaprada. Musta is having krimighna guna. Daruharidra is having vranaropana, sophaghna, rujahara and kandughna guna. Ajaksheera is having sheeta virya, rakta prasdana guna. Stanya is having madhura rasa, sheeta virya and is tridoshas shamaka.<sup>7</sup>

These drugs have anti-inflammatory, anti-oxidant, wound healing, antibacterial, antifungal, antimicrobial actions which helps to early wound healing further by avoiding the complications of an injury.

As this comes under the concept of preventable blindness, proper awareness should be created in public so that one can contribute for the society in controlling preventable blindness. Prevention is the necessary possible way to prevent ocular trauma and usage of *Chatra* dharana, *Padatradharana* can somehow prevent ocular injuries caused by *Surya – atapa*.

#### CONCLUSION

All ocular structures are vulnerable to injury. The site is often depended on the cause and mechanism. It ranges from very minor injuries (like getting dust into eyes) to the catastrophic resulting in permanent loss of vision. It is the second leading cause of visual impairment in the United States. Owing to its illeffects, even our acharvas have explained nayanabhighata in a vivid manner. The chikitsa is adopted based on the avastha of the abhigata and based on the *doshic* predominance wherein they have clearly told if it afflicts tritiya patala, it is asadhya. The different treatment modalities explained by our Acharyas includes Nasya, Alepa, Parisechana, Tarpana, concept of Pathya, Drushtiprasada janana dravyas, application of Snigdha, Hima, Madhura dravyas. Acharya Sushruta explains the use of drushti bala pradha krivas which further implies that the any ocular injury may cause *drushti hani*. "Netre tu abhihite kuryat", emphasizes that we have to do immediate treatment by analyzing Aagantu dosham. Based on the yukti of the physician, the treatment should be administered properly which would definitely save the eye of the injured person.

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