

Importance of Anjana in Kriyakalpa: A Review Article

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Abstract— Shalakra Tantras one of the eight specialties of Ashtanga Ayurveda which deals with diseases occur above the clavicle specially related to the sensory organs. Eyes hold special status among all the sense organs because good vision is crucial for social and intellectual development of human beings. Hence authentic classics prescribed several preventive and curative measures for the management of ophthalmic disorders. Among them, topical treatments are very unique, effective in the management of eye diseases and are called "Netra Kriyakalpa". Netra Kriyakalpa have very fast action on the target tissues of eye. Anjana is a medicinal preparation which is applied on the lower palpebral conjunctiva or the cul-de-sac. Its active principles may be transferred to the interior of the eye according to their hydrophilicity and lipophilicity mainly through the conjunctiva and cornea by paracellular and transcellular pathways respectively. pH, viscosity, tonicity, molecular size and molecular weight of the active ingredients are highly responsible for the absorption of Anjana. According to its form Anjana is of 3 types i.e. Gutika, Rasakriya and Churna. Gutika and Churna types of Anjana can be correlated with ophthalmic suspensions and Rasakriya type is with aqueous solutions/eye drops. Gutika and Churna Anjana have micro particles which may be deposited in the cul-de-sac and thereby increase the bioavailability to enhance ocular absorption. Anjana therapy may be highly beneficial in the anterior segment disorders because of the presence of several anatomical, biological and physiological ocular barriers. However it gives better results on the posterior segment disorders also.

Indexed Terms- Anjana, Netra Kriyakalpa, Hydrophilic, Lipophilic

I. INTRODUCTION

Netra kriyakalpas are pitta rakta predominant condition it should various methods of application of medi-besheeta, tikta, kashaya dravyas are cinesin the eye. Acharya Susruta ex-preferable and in kaphavikar it should be plain 5 varieties, but we get 7 types of

made of Katu, tikta, kashaya dravyas. netra kriyakalpas in Sharangdhara Seka, Ashchyotana, Vidalaka and Pindi can Samhita which include Tarpanam, be advised in the Amavastha or early stage Putapakam Sekam, Aschyotana, Anjana, of a diseases process Tarpana, Putapaka Pindi and Vidalaka. In Sushruta samhita and Anjana are preferred in the there is no indication of Pindi and Pakvavastha (laterstage). These methods can be Among this because of easy administration-invariably use in all types of doshiktion, availability, affordable price Anjana vitiation, it is the drugs used for theism the best option among Kriyakalpa espe-procedure that make it more specific tocially when a long term therapy is needed. Particular dosha .e.g. seka can be per-Anjana (collyrium) is a popular method offormed vata predominant eye disease but it application of medicine inside the eye. In should be snigdha and kosha in nature, in addition to its benefits in curing ailments related to the eye this particular procedure is mentioned as a daily routine in order to protect the eye from various eye disorders and to maintain the equilibrium of doshas inside the eye. Though there are indications of Anjana everywhere in different contexts of Netrarogas, Acharya explore vast varieties of Anjana for the management of Drishtigatarogas. It may be due to the fact that compared to other methods it can be advised for long period and Drishtigataroga needs prolonged therapy either in terms of care, prevention or for treatment.

Method of application of Anjana

Poorva Karma

After deciding the type and dose of Anjana, the desired amount of it can be applied to the eyelid using the different applicator mentioned for particular purpose. To avoid the anxiety of the patient the procedure should be explained to them.

Position - Anjana can be applied in supine or sitting position.

Pradhana Karma: Eyelids are retracted with left hand, while with the help of right hand Anjana is applied with Shalaka from inner canthus to outer canthus and vice-versa. After applying the Anjana, the patient is asked to close the eyelids gently and to rotate the eyeball, which helps in spreading of medicine in the eye. Blinking, rubbing of lids, washing the eye is contraindicated during the procedure. The dissolved Doshas come out through lacrimation.

Paschat Karma: After Anjana Karma when lacrimation stops then Netra Prakshalana (Eye wash) is performed with suitable decoction as per Dasha, Roga, and Ritu. After Prakshalana, eye is wiped with clean cloth and Pratyanjana of opposite quality of Anjana is applied.

Prakshalana Vyapad: If Prakshalana is done prior to elimination of Doshas, there is a fear of recurrence of disease.

In case of improper Prakshalana symptoms like itching, inertness occurs. In that condition Tikshnaanajana or Tikshna Dhuma is indicated.

Samyak, Atiyoga, Hinayoga of Anjana.

Lekhananjana Samyak Yoga: Eye becomes clean, no discharge with symptom of lightness, clarity in vision and proper activity of eyelids and free from complications.

Atiyoga Lakshana, Chikitsa: Causes squint, hardness, discoloration dryness and excessive discharge. These conditions should be treated with nourishing therapies that alleviate Vata.

Hinayoga Lakshana, Chikitsa: Aggravation of Doshas occurs. Measures such as Dhuma, Nasya, Anjana are advocated to eliminate the Doshas.

Prasadana Anjana and Ropana Anjana: Samyak Yoga, Atiyoga and Ayoga of Ropananjana is described same as that of Prasadananjana.

Samyak Yoga: Eye become pleasant with devoid of Doshas, attains unctuous, normal colour, strength and able to perform proper eye movements.

Atiyoga: Symptoms such as heaviness of eye, eye filled with tears, excessive unctuousness, lacrimation, itching, sticking of eyelashes with less severity than that of Atiyoga of Tarpana.

Ayoga: Doesn't serve the purpose of application.

Mode of Action: According to Acharyas the Lekhan Anjana because of its Tikshna property, eliminate the Doshas from the Siras pertained to Vartma & eye and from the tissue, from related Srotas and also from the Sringataka Marma through mouth, nose and eye. A medicine applied to eye spreads to Netra Sandhi, enters the nose through nasolacrimal duct and reaches the Nasa Siras, and also to Shringataka Marma and takes away the Doshas and expels them. Gutika and Churna Anjana have micro particles which may be deposited in the cul-de-sac and thereby increase the bioavailability to enhance ocular absorption. The ocular absorption of Anjana may initiate through the conjunctiva and cornea. Mainly lipophilic active ingredients may get absorbed through the cornea by transcellular pathway and hydrophilic ingredients from the conjunctiva by paracellular pathway. Most importantly molecular size and molecular weight of the active ingredients play a major role in the absorption process. Once it crosses the conjunctiva (mainly hydrophilic); the sclera is more permeable and it allows drugs to penetrate the other interior structures of the eye i.e., ciliary body, iris, aqueous humour, lens, vitreous etc. The drugs pass through the corneal epithelium (mainly lipophilic) directly goes to the aqueous humour and then get distributed to the other ocular tissues. However, some of the drugs coming to the aqueous humour either via cornea or conjunctiva are undergo to metabolization by the enzymes present in the aqueous. Considering all these factors it can be said that Anjana therapy is very beneficial in ocular diseases¹⁻⁵.

DISCUSSION

Considering all of above discussed factors Anjanatherapy is a holistic, well developed method of topical ocular drug administration which is

described in detail with its indications, contraindications, application method, pre and post procedure measures, dosage forms and even proper storage advices in authentic texts. It can be taken as a further development of Ashyotana due to its increased bioavailability on the ocular surface than the Ashyotana. Not only that ancient Achryas advised some processes to overcome some practical difficulties of Anjana therapy too such as Anjana should be applied from medial canthus to lateral canthus and vice-versa; which increases bioavailability, just after the application the patient is asked to move the eyeballs upwards and rotate slowly which allows the medicine to spread over the eye, eyelids should be moved slightly by eye massaging with close eyes this might be helpful for increase absorption by limiting nasolacrimal drainage. However the exact mode of action of the Anjanatherapy is still not proved by any experimental studies. Hence now it is high time to prove our ancient knowledge in accordance to modern point of view. High ocular irritation and less contact time are the main problems in Anjana therapy. Ocular irritation can be minimize by using the optimal particle size ($<10\ \mu\text{m}$) and using pH between 6.5 to 7.6; which is the pH value of normal tears. Meanwhile bioavailability can be increase by using optimal viscosity and tonicity. The optimal viscosity for ophthalmic preparation is 12-15cp and optima tonicity is 266-445mOsm/kg. Normally instilled drugs completely disappear from the cul-de-sac in about 5 min specially eye drops. Thus if the second drop is applied 5 min after the 1st drop then no washout effect occurs on the 1st drop. Hence this theory can be applied for the Rasakriya Anjana for optimal results; however for the Churna Anjana and Gutika Anjana have higher bioavailability itself. Most of the modern topical ocular preparations are not able to reach up to the posterior segment. But Anjana is a good, simple, easy and effective treatment modality for treating both the anterior and posterior segment disorders of the eye which is being practiced more than 5000 years. Finally it can be concluded that Anjana is an ideal remedy for various types of ophthalmic disorders; which can be used as preventive as well as curative measure.

CONCLUSION

Kriyakalpas are well designed procedures to treat ocular disorders but among them Anjana is used for both ocular as well systemic diseases which was outlined by our ancient medical scholars as they were aware of the mechanism of Blood aqueous barriers, and Blood Brain Barriers thus Anjana is mentioned in Netra Vikaras as well as in some of the Systemic disorders. Anjana is the simple therapeutic procedure among the Kriyakalpas for the daily usage which will acts as Chakshushya i.e., helps in maintaining good visual acuity. It has protective and curative effect on the eyes. After application of Anjana, person is asked to rotate the eyeball by closing the lids allowing spread of medicine over the eye by limiting nasolacrimal drainage there by increasing the bioavailability of medicine. Anjana is a good, simple, easy and effective treatment modality for treating both the anterior and posterior segment disorders of the eye which is being practiced more than 5000 years. Finally, it can be concluded that Anjana is an ideal remedy for various types of ophthalmic disorders; which can be used as preventive as well as curative measure.

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