A CASE STUDY ON DRAKSHA GHRITA IN DIABETIC TYPE OF CRANIAL MONONEUROPATHY – III

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INTRODUCTION
Cranial mononeuropathy – III is also known as oculomotor nerve palsy. It is one of the complication of diabetes. The clinical features are ptosis (an abnormally low position of the upper lid), diplopia (double vision) and periorbital pain.\textsuperscript{[1]} In Ayurveda, prameha is one of the cause for eye diseases.\textsuperscript{[2]} It can be correlated with kruchronmeela. It is a vataja vartmagata vyadhi, characterised by drooping of eyelid with pain and watering of eye.\textsuperscript{[3]} The one of the chikitsa mentioned in classics is drakshaghrita prayoga in the form of nasya, tarpana, dhooma, anjana etc.\textsuperscript{[4]}

ABSTRACT
One of the complication of diabetes is Cranial mononeuropathy –III. India has one of the highest prevalence of Type 2 DM in the world. This type of damage may occur along with the diabetic peripheral neuropathy. The prevalence rate of diabetic peripheral neuropathy varies greatly in different studies ranging from 8% to 59%. Major complaints are ptosis, diplopia and ocular pain/ headache. There is no satisfactory treatment modality for ptosis other than surgery. In Ayurveda this condition can be correlated with kruchronmeela and this patient treated with tarpana and nasya followed by aschyotana and pratimarsha nasya with draksha ghrita.

KEYWORDS: Kruchronmeela, Draksha ghrita, Cranial mononeuropathy- III, Diabetes

CASE REPORT
A 72 year male patient came to Shalakya OPD of Government Ayurveda Medical College, Bengaluru

Chief complaints: Drooping of right eyelid associated with double vision and watering of right eye since 6 weeks.

History of present illness: The onset was sudden and he consulted an Ophthalmologist for the same. The case is diagnosed as diabetic type of cranial mononeuropathy III. Doctor advised him to take proper and regular diabetic medication for one month. After one month his blood sugar level was well controlled but he does not found any improvement in ptosis and diplopia, but got mild relief from watering of eye. Again he was consulted an ophthalmologist and they advised to take some injections. Patient is refused to take injections and he came to the hospital with the hope on Ayurvedic treatment.

Past History: Diabetes since 15 years.

Family History: Nothing significant

General examination: Nothing significant
to this particular disease.

**Ocular examination:**

**Visual acuity:**

<table>
<thead>
<tr>
<th></th>
<th>Distant Vision (without glass)</th>
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<th>Near Vision (without glass)</th>
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<tr>
<td>Right eye</td>
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<td>6/12</td>
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<tr>
<td>Left eye</td>
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<td>N6</td>
<td>N6</td>
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C/O Double vision, once he close his left eye.

**Eyelid examination:**

* Marginal reflex distance-1: 0 mm
** Marginal reflex distance-2: 0 mm
Vertical diameter of palpebral aperture: 0 mm

*MRD (Margin reflex distance)-1: Distance between the corneal light reflex and centre of the upper eyelid at the primary position.
**MRD-2: Distance between the corneal light reflex and lower eyelid at the primary position.[5]

**Investigations:**

**Haematological examination:**

Haemoglobin: 13.9 gm/dl
PCV, RBC, Total WBC, Platelet counts are within normal limit.
Eosinophils count: 8%
RBS: 70 mg/dl

**Plain and Contrast MRI of brain with orbits:**

Diffuse cerebral atrophy- age related.
No evidence of any intra axial / extra axial space occupying lesion.
No evidence of acute/ chronic ischemic and hemorrhagic lesion.
No evidence of any intra/ extra canal space occupying lesion.
Optic nerve appears normal including optic chiasma, optic tracts and optic radiations.

**Final diagnosis:**

Diabetic type of Cranial mononeuropathy-III (It is also seen in hypertension, tumours, head injury. In this case patient does not had any lesions and no history of trauma and hypertension)

**TREATMENT:**

**METHODS**

7 days - Tarpana with draksha ghrita – 100 matrakala followed by Nasya with draksha ghrita
- Abhyanga with ksheerabala taila- 10 min followed by swedana
- 8 drops of draksha ghrita for nasya
- Draksha ghrita ingredients:[4]

1. Dry grapes - 125gms
2. Cows ghee- 500ml
3. Draksha kashaya - 2000ml
4. Sugar candy- 50gms

Prepared as per classical snehapaka vidhi
-Pathya- Yavodaka internally
-Advice to continue the anti-diabetic medication

**RESULTS**

After 7days of treatment
Patient was able to open the right eyelid without any mechanical intervention, but diplopia was persists. No complaint of watering of right eye.
Visual acuity:

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After this tarpana and nasya patient is advised to do draksha ghrita aschyotana and pratimarsha nasya for 15 days. On 15th day patient did not had diplopia and visual acuity was maintained. He advised to take aschyotana and pratimarsha nasya for 15 more days and after one month patient was completely alright.

**DISCUSSION**

Nasya (Instillation of medicine into the nose) procedure might have major role in correcting the nerve palsy was just a supportive treatment. Lipid soluble substances have greater affinity for passive absorption through the cell walls of nasal mucosa. In Tarpana (Pouring of medicated ghee into the eyes) and Aschyotana (Instillation of eye drops) some part of the drug drained into nasolacrimal duct and comes into the contact with nasal mucosa. This intra nasal drug delivery is a non-invasive method that bypasses the Blood Brain Barrier and targets drugs to the CNS, reducing systemic exposure and side effects.[6]

The formulation is containing draksha, ghrita and khanda sharakara which are chakshushya and vatahara.[7] Other research works shows the above drugs are having very important role in diabetes. Resveratrol is a natural phytochemical found in grapes. In animal model of diabetes, resveratrol was shown to protect against neuropathy as a result of its ability to inhibit inflammation as well as reduce oxidative stress and DNA damage.[8] Ghee lowers the glycemic index and helps to regulate the blood sugar response. Lipid soluble substances have greater affinity for passive absorption through the cell walls of nasal mucosa. So, the assimilation of the nutrients increases when suspended in a ghee matrix.[9] Barley...
intake showed significant reduction in glucose and insulin responses.[10]

Diabetic Type of Cranial mononeuropathy-III is reversible in some patients after proper control of blood sugar level. But in some cases it may end up with permanent eyelid drooping and vision changes. There is no satisfactory treatment modality for ptosis in modern medicine other than surgery. So, Intranasal drug delivery of Ayurvedic medicine might be helpful to treat this condition.

CONCLUSION

In modern era most of the diseases can be correlated to particular disease or symptom/sign of one single disease explained in classics. Clinical features of Diabetic type of Cranial mononeuropathy-III and kruchronmeela are almost similar. So, one of the kruchronmeela treatment is utilised here. Many eye diseases are related with nerve pathology. Because eye is a neuro-biological organ. Nasya with lipid soluble substance is best treatment in most of the neurological diseases and Tarpana, Aschyotana gives added benefits to Nasya. The same study to be done in larger sample to know the statistical significance.

REFERENCES

6. Leah R Hanson and William H Frey II: Intranasal delivery bypasses the blood-brain barrier to target therapeutic agents to the central nervous system and treat neurodegenerative disease. BMC Neuroscience; 2008

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Before

After