MANAGEMENT OF DIPLOPIA BY AYURVEDA A-CASE REPORT

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Introduction:
Diplopia commonly known as double vision is the simulation perception of two images of a single object that may be displayed horizontally, vertically or diagonally in relation to each other. It is usually result of impaired function of the extra ocular muscles where both eyes are still functional but they cannot converge to target the desired object.

Anatomy: Eyeball is a cystic structure placed in the bony cavity called orbit. A set of 6 extra ocular muscles i.e. 4 rectus and 2 oblique muscles control the movement of the eyes. They are:

- Superior Rectus
- Inferior Rectus
- Medical Rectus
- Lateral Rectus
- Superior oblique
- Inferior oblique

Nerve supply: The extra ocular muscles are supplied by 3rd, 4th & 6th cranial nerves.  
3rd - Occulomotor supplies to superior rectus, inferior rectus, medical rectus & inferior oblique. 4th - Trochlear Nerve supplies to superior oblique muscle. 6th - Abducent Nerve supplies to lateral rectus muscle.

Actions: The Extra ocular muscles rotate the eyeball around vertical, horizontal and anterior-posterior axis. All the 6 muscles helps for the easy movement and there by helps for proper perception of vision. The 3rd, 4th & 6th cranial Nerve supplying to these extra ocular muscles becomes inactive by some reasons like diabetes, ear infections, and infection of surrounding structures. Then there will be paralysis of these extra ocular muscles leading to restricted movement of the eyeball.
Through diplopia is not described as independent diseases entity in Ayurveda, some terms can be correlated with diplopia. Acharya Susrutha have mentioned that when doshas enter in tritiya pataala there will be timira vyadhi. In this condition when doshas lodges in Madhya bhaga of drusti then there will be dwandwa drusti i.e... Double vision. Vagbata too has described dwandwa drusti (diplopia) as one of the symptoms of dwitiya patalagata timira when doshas lodges in dwitiya pataala.

**Case report:**

A 23 old male patient came to the Shalakya OPD, JSS Ayurveda Hospital, Mysore, Karnataka, India, with a complaint of diplopia in left eye since 3 months.

He gave a history of left ear infection 5 months back for which he took treatment, while in the course of treatment he developed diplopia and the diplopia versions as he view the lateral side.

On Examination of individual of eye, the visual acuity was normal, IOP is in the normal limits.

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<th>Right eye</th>
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<th>Near vision</th>
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On funduscopy:

RE: pupil-grayish white
LE: grayish white
Reactive normally
Fundal glow present
Optic disc appears normal

Before planning the treatment he was screened for diabetes mellitus, thyroid disorder, and hyper cholestremia and found that all these blood investigation are in normal limits.

**Treatment adopted:**

1. Amapachana with panchakola choorna 3gms bd before food for 2 days.
2. Snehapan with Triphala grutha.
3. Vichada with Trivert lehya (40gms).
4. Nasya with Ksheerabala 101 Talia (6 drops in each nostril) x 7days.
5. Tarpana with jeevaatyadi grutha x 7days.
6. Eye Exercise with Stanika Abhyanga & Sweda x3 months.

1. **Window exercise:** Sitting in front of the window and viewed in clockwise direction for 25 times by closing the normal eye.
2. **Pendulum exercise:** Observing the oscillating movement of the pendulum for 25 times.

   Internally
   - Cap palsyneuron 1-0-1.
   - Mahavata Vidwamsini ras 2-0-2.
   - Dashamooldakatu trayadi Kwatha 3tsf-0-3tsf.

Patient was asked to attend Shalakya OPD for retinue eye check up to assess the improvement.

By the end of 3 Months the patient is relived of diplopia.

**Discussion:** Diplopia is a double vision and a very annoying symptoms as it disturbs the routine work of the patient. To relive diplopia all the 6 extra ocular muscles & their nerve supply should become normal so that the movement of eyeball in all 6 directions becomes easy and the co-ordination between the eyes can be achieved.
In this case diplopia was due to the paralysis of lateral rectus muscle of left eye where the lateral rotation of the eye was restricted and the 6th cranial nerve was inactive. The aim of the treatment is to activate this nerve and normalize the lateral rectus muscle movement.

Nasya may interfere with the neurological dysfunction of 6th cranial nerve i.e., abducent nerve and activates the lateral rectus muscle. Hence in this case nasya is a Vyadhipratyanika Chikitsa. Tarpana helps to nourish the eyeball as well as the extra ocular muscles. Sthanika Abyanga & Sweda helps to rejuvenate the nerves and muscles. Eye exercise helps to improve the tonicity of the muscles and thereby helps to relieve diplopia. Internally, Cap Palsy neuron & Maha vata vidmamsini ras acts as nerve and strengthen the nerves and muscles.

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