A CLINICAL STUDY ON COMPARISON BETWEEN AKSHI-TARPANA AND ANJANA IN THE MANAGEMENT OF TIMIRA W.S.R TO MYOPIA

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INTRODUCTION:

- Myopia, also known as short sightedness, is dioptric condition of the eye in which, parallel rays of light coming from infinity are focused in front of the retina when accommodation is at rest*

- Various surveys in India have found myopia prevalence ranging from 6.9% to 19.7%. **Myopia has been implicated as the sixth leading cause of vision impairment.***

- On the basis of clinical features Myopia can be correlated with 1st and 2nd Patalgata Timira.

*Parson Parson’s Disease of Eye 21 Edition ELSEVIR Publication-A divison of elsevir India private limited 8 /73  
WHY THIS TOPIC?

- Modern medical science has no medicine to preserve the sight of myopic patient and surgical measures carry the risks and complications apart from being expensive.

- On the other side Ayurveda has the concept of Chakshushya Dravyas which mean these drugs are good for the eyes to maintain their healthy state and to treat the pathological conditions.

- In the Chikitsasutra of Timira - Tarpana and Anjana have been mentioned by all Acharyas.
HYPOTHESIS:

- **NULL HYPOTHESIS (HN)**
  
  *Anjana is not more efficacious than Tarpana in reducing clinical refraction of myopia.*

- **ALTERNATIVE HYPOTHESIS (HA)**
  
  *Anjana is more efficacious than Tarpana in reducing clinical refraction of myopia.*
Materials & Method

- **Study design**: Randomized Interventional open label clinical trial.

- The patients were selected from O.P.D. of Shalakya tantra Department, I.P.G.T. & R.A., Jamnagar for the study.
## DRUGS AND POSOLOGY
### PRE-INTERVENTION:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Drug</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KOSHTHA SODHANA</strong></td>
<td><em>Avipatikara churna</em> (Bhaisajya ratnavali -56/25-29)</td>
<td>6 gm HS / day</td>
<td>For 7 days before Nasya</td>
</tr>
<tr>
<td><strong>SIROVIRECHANA</strong></td>
<td><em>Krishnadhya Taila</em> (Chakradatta- 59/86)</td>
<td>4-8 drops per nostril</td>
<td>For 7 days before Tarpana and Anjana</td>
</tr>
</tbody>
</table>
## DRUGS AND POSOLOGY INTERVENTION:

<table>
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<tr>
<th>Purpose</th>
<th>Drug</th>
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<th>Duration</th>
</tr>
</thead>
</table>
| Group A 
TARPANA   | *Triphala ghrita*  
(A.H uttar - 13/10-11) | 20 +/-2 ml/Day      | 3 sittings of 7 days each with a gap of 1 week in between each sitting for about one and a half month |
| Group B 
ANJANA     | *Vimala varti*  
(A.H Uttar - 13/70)   | 125mg BD/Day        | one and a half month                                                     |

*Rasayana yoga*(Anubhuta yoga) was same in both group as oral compound

<table>
<thead>
<tr>
<th></th>
<th><strong>Rasayana yoga</strong>(Anubhuta yoga)</th>
<th>5.5gm BD/day</th>
<th>one and a half month</th>
</tr>
</thead>
</table>
DIAGNOSTIC CRITERIA

INCLUSION

• Age 7 – 30 yrs.
• Signs and symptoms of Timira
• Myopia up to -6D
• Normal fundus

EXCLUSION

• Extremely debilitated pts.
• Ocular pathology e.g. cataract, corneal opacity, glaucoma, other retinal diseases etc.
• Myopic degenerative changes.
CRITERIA FOR ASSESSMENT:

Assessment was done on the basis of scoring pattern applied for subjective & objectives parameters both before and after treatment.

Subjective criteria:
- Symptoms of myopia
- Visual acuity

Objective criteria:
- Clinical refraction
- Keratometry
- A Scan
- Indirect ophthalmoscopy (for peripheral retinal changes)

Cycloplegic Retinoscopy and Autorefractometer reading was taken pre and post cycloplegia.
OVERALL ASSESSMENT:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Improvement In Vision</th>
<th>% Of relief in signs and symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cured</td>
<td>UP TO 1.0D</td>
<td>100</td>
</tr>
<tr>
<td>Marked Improvement</td>
<td>UP TO 0.75D</td>
<td>76-99</td>
</tr>
<tr>
<td>Moderate Improvement</td>
<td>UP TO 0.5D</td>
<td>51-75</td>
</tr>
<tr>
<td>Mild Improvement</td>
<td>UP TO 0.25D</td>
<td>26-50</td>
</tr>
<tr>
<td>Unchanged</td>
<td>No Change</td>
<td>≤25</td>
</tr>
</tbody>
</table>
## REGISTRATION OF PATIENT

<table>
<thead>
<tr>
<th>Completion Wise</th>
<th>No of Patients</th>
<th>Percent age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group A</td>
<td>Group B</td>
</tr>
<tr>
<td>Completed</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Discontinued</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>
EFFECT ON SUBJECTIVE PARAMETERS

N=36

Group A  Group B

Avyakta Darshana  40.54  31.43
Vihwala darshana  44.74  47.62
Eye strain  60  61.9
Shirobhitapa  87.5  53.33
Netrasrava  100  60
Netradaha  100  100
EFFECT ON OBJECTIVE PARAMETERS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaided vision Right eye</td>
<td>20.48</td>
<td>5.56</td>
</tr>
<tr>
<td>Unaided vision Left eye</td>
<td>19.51</td>
<td>2.37</td>
</tr>
<tr>
<td>Keratometry Right eye</td>
<td>0.70</td>
<td>0.51</td>
</tr>
<tr>
<td>Keratometry Left eye</td>
<td>0.57</td>
<td>0.43</td>
</tr>
<tr>
<td>Axial length Right eye</td>
<td>0.04</td>
<td>0.19</td>
</tr>
<tr>
<td>Axial length Left eye</td>
<td>0.01</td>
<td>0.69</td>
</tr>
</tbody>
</table>
EFFECT OF THERAPY

- **Right eye Spherical:** Group A: 14.38, Group B: 8.94
- **Right eye Cylindrical:** Group A: 25, Group B: 0
- **Left eye Spherical:** Group A: 16.33, Group B: 8.93
- **Left eye cylindrical:** Group A: 23.08, Group B: 7.83
DISCUSSION

- *Chakshushya Rasayana* is necessary to control the progression and management of Myopia.

- Both the groups showed significant improvement in clinical features like *Avyakta Darshana*, *Vihwala Darshana*, Eye strain, *Shiroabhitapa*, unaided distant visual acuity, pin hole vision, Best corrected vision, Spherical glasses.
Maximum numbers of the patients were from school going age group and having a habit of working on computers and studying for long time. This observation supports the theory which states that excessive use of accommodation will lead to the development of myopia. In most of the patients, even if no change in clinical refraction, still overall clarity of vision was found to be improved and asthenopic symptoms like Netrayasa, Netrastrava, Netradaha etc. were remarkably reduced.
According to Ayurveda, *Vata-prakopaka nidana* could be considered as a main etiological factor to precipitate the clinical entity of the MYOPIA.

The use of local therapy in the form of *Tarpana* and *Anjana* with *Tridosha shamaka*, *Chakshushya* drugs; *Snehana*, *Shamana* and *Rasayana* drugs internally constitutes the basic therapeutic approach in combating most of the symptoms of the MYOPIA.
We cannot correlate MYOPIA completely with any disease in our literature.

Various treatment modalities of modern science is of limited benefit and also expensive to poor and middle class people, so Ayurveda can be of great help to deal this problem by its preventive and curative approach.
No adverse reaction was found during the study.

*Tarpana* and *Anjana* are both effective in the management of Myopia but *Tarpana* is more effective in comparison with *Anjana*. The clinical study establishes both the test drugs can reduce and control the progress of Myopia.
THANK YOU