A Clinical Study on Vrishagritha Aschyothana and Paana in the Management of Prathamapatalagata Timira

P Chandana¹, Bhat Gururaj Anil², M J Ashwini³
¹Research Scholar, ²Assistant Professor, ³Professor
¹, ², ³SDM College of Ayurveda and Hospital, Hassan, Karnataka, India

How to cite this paper: P Chandana | Bhat Gururaj Anil | M J Ashwini "A Clinical Study on Vrishagritha Aschyothana and Paana in the Management of Prathamapatalagata Timira" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-3 | Issue-5, August 2019, pp.703-706, https://doi.org/10.31142/ijtsrd26426

ABSTRACT

Forty diagnosed cases of Prathamapatalagata Timira (Simple myopia) were selected for clinical study irrespective of gender, socioeconomic status and religion with an aim to know the efficacy of Vrishagritha Aschyothana (Topical eye drops) and Paana (internal medication). The study was open labeled single-arm clinical study, managed with Aschyothana for 7 days and Paana for 60 days. To present the study in a scientific manner criteria’s were made Ayaaktha Darshana (Poor vision for distance), Auto Refractometry, Visual efficiency by Snellen’s chart for assessment and statically evaluation. Obtained results were found to be significantly effective.

KEYWORDS: Parthamapatalagata timira, Vrishagritha, simple myopia, vasa panchanga

INTRODUCTION

Prathamapatalagata Timira (simple myopia) is one among the Drustigata Netra Roga (disease of refractive media) presenting as Ayaaktha Darshana (difficulty in distant vision) hence can be co-related to Simple Myopia. Overall prevalence is 20%-40% of population sharpest rise occurs at school going age. Refractive Error is the second leading cause for blindness in India. Vrishagritha contains panchanga (5 parts) of asa (Adathoda vasica) having properties like kaphanissaraka (mitigates vitiated Kapha dosha) and Gritra raktpittashamaka (reduces vitiation of Raksha and pitta dosha), Rasayana (rejuvenation), chakshushya (beneficial for eyesight). Hence this study was planned to evaluate the effectiveness of Vrishagritha Aschyothana and Paana in the management of Parthamapatalagata Timira (Simple Myopia).

NEED FOR THE STUDY

Myopia or short-sightedness is a type of refractive errors in which parallel rays of light coming from the infinity are focused in front of the retina when accommodation is at rest. Simple myopia or developmental myopia is the commonest verity. Aschotana is the process of installation of medicine drop by drop from a height of 2 angulas in the Kaneanika Sandhi (Medial Canthus). Aschotana is the primary method of ophthalmic medication and is effective in the majority of eye diseases. Paana administered internally normalizes the aggravated dosha without expelling or disturbing the other normal doshas and spreads all over the body. Vaasa Gritra is capable of pacifying dosha which is found to be in its chayavastha and also enhances digestive fire and stabilizes sense organs. Vrishagritha administered in the form of aschotyana and paana acts over prathamapatala (tejoljashrtha patala) of Netra. Tejo component is alochakapitta and raktha dhathu pradhana and vrishagritra has raktha and pitta shamaana action because of its sheetha virya and chakshushya property and its karmakatha. Hence it acts over prathamapatala. Jala component implies for rasa dhathu. Gritra by the virtue of its property is pitta shamaana and chakshushya and nourishes the rasa dhathu.

NEED FOR THE STUDY

The usual treatment for simple myopia is an optical correction (spectacles or contact lenses) to restore distance vision, but it fails to decrease the risk of posterior segment sequel of myopia. Surgical intervention although popular is not successful in all individuals, complications such as dry eye and night glare can be annoying everyone. It is advised only in the condition of stabilized myopia. Hence, the necessity of other treatment measures which can prevent the further progression of the disease is the main focus.

In ayurvedic classics, various way of approach in this regards, like netra kiryakalpas, detoxication procedures, palliative measures, which are said to enhance visual acuity, improve in the general health of the eye and also prevents further complications.

Aschotana is mentioned as the first line of treatment in eye diseases. More than 80% of the medicine will be drained into the nasolacrimal duct through punctum which maintains the integrity of the drainage. In sahasra yoga there is mention of vrishagritra which is indicated in timira. For all the urduvatrugata vikara nishi (night) is the most ideal and effective aushada sevana kala. In this study an effort has been made to evaluate the efficacy of aschotyana and paana of vrusha ghrita in the management of simple myopia, as the medicines are easily available, cost-effective, easily administered without any complications.

MATERIALS AND METHODS

The current study will be convenient sampling an open-label single arm prospective interventional clinical study with pre hoc and post hoc test design. Patients attending the OPD and
IPD of shalakya tantra Shri Dhamasthamala Manjunatheshara College of Ayurveda and Hospital, Hassan. 40 patients fulfilling the inclusion criteria, were selected by convenient sampling method.

**DIAGNOSTIC CRITERIA**
Clinical features of Prathamapatalagata timira (simple myopia)
- Avyaktha Darshana – Poor vision by distant
- Diagnosed by –
  1. Auto Refractometry
  2. Visual efficiency by Snellen’s chart

**Inclusion criteria**
- Patients complaints of difficulty in distant vision
- Patients under the age group of 5-20 years.
- Patients who are ready to sign an informed consent form and parent assent form.

**Exclusion Criteria**
- Pathological myopia, high myopia with degenerative and retinal changes, associated with endocrinal and nutritional disorders.
- Myopia associated with neighboring structural deformities like cataract, corneal opacity.

Patients suffering from any of the systemic disorders such as hypertension, diabetes, tuberculosis, syphilis.

**POSOLOGY**

**RESULT ON VISUAL ACUTY FOR DISTANT VISION OF 80 EYES REPEATED MEASURE ANOVA**

Table No.1: Showing the repeated measure ANOVA result on visual acuity for the distant vision of 80 eyes

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Df</th>
<th>F</th>
<th>P-value</th>
<th>Greenhouse-geisser error df</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV-BT</td>
<td>80</td>
<td>51.60</td>
<td>2.517</td>
<td>36.542</td>
<td>0.000</td>
<td>198.807</td>
<td>$S$</td>
</tr>
<tr>
<td>DV-15D</td>
<td></td>
<td>54.250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DV-30D</td>
<td></td>
<td>57.900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DV-45D</td>
<td></td>
<td>61.600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DV-60D</td>
<td></td>
<td>63.650</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DV-75D</td>
<td></td>
<td>63.725</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean value on visual acuity for the distant vision of 80 eyes for 40 patients at each level of study including follow up, it is found that the mean value of distant vision before treatment has improved from 51.600% to 63.7250% at Greenhouse-guesser Error at df 198.807 which is statistically significant at p-value < 0.001.
The mean value of best corrected visual acuity for distant vision of 80 eyes for 40 patients at each level of study including follow up it is found that mean value of distant vision before treatment has not much improved from 90.0250% to 90.8000% at Greenhouse-giesser Error at df 183.921 which is statistically not significant at p value < 0.001

Table No3: Showing the repeated measure anova result on visual acuity for distant vision for both eyes

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Df</th>
<th>F value</th>
<th>P value</th>
<th>Greenhouse-giesser error df</th>
<th>Remarks</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE DV-BT</td>
<td>40</td>
<td>60.650</td>
<td>2.608</td>
<td>13.556</td>
<td>.000</td>
<td>101.712</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>BE DV-15D</td>
<td>60.275</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE DV-30D</td>
<td>63.700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE DV-45D</td>
<td>66.250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE DV-60D</td>
<td>67.125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE DV-75D</td>
<td>67.275</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean value of visual acuity for the distant vision for both eyes of 40 patients at each level of study including follow up, it is found that mean value of distant vision before treatment has improved from 60.6500% to 67.2750% at Greenhouse-giesser Error at df 101.712 which is statistically significant at p value < 0.001

Paired t' test

Table No4: Showing the paired t test result on visual acuity for distant vision of 80 eyes

<table>
<thead>
<tr>
<th>BT-AT</th>
<th>Mean BT</th>
<th>Mean AT</th>
<th>Mean diff</th>
<th>SD</th>
<th>SE</th>
<th>t value</th>
<th>Df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV</td>
<td>51.600</td>
<td>63.650</td>
<td>-12.05</td>
<td>14.451</td>
<td>1.615</td>
<td>-14.08</td>
<td>79</td>
<td>0.008</td>
</tr>
</tbody>
</table>

It was observed that there was a significant difference in mean values of before and after treatment in relation to visual acuity for the distant vision of 80 eyes of 40 patients with a mean difference of -12.05, which is statistically significant as the P-Value < 0.008

Table No5: Showing the paired t test result on visual acuity for distant of both eyes

<table>
<thead>
<tr>
<th>BT-AT</th>
<th>Mean BT</th>
<th>Mean AT</th>
<th>Mean diff</th>
<th>SD</th>
<th>SE</th>
<th>t value</th>
<th>Df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV</td>
<td>60.6500</td>
<td>67.1250</td>
<td>-6.475</td>
<td>9.732</td>
<td>.360</td>
<td>-6.475</td>
<td>39</td>
<td>0.008</td>
</tr>
</tbody>
</table>

It was observed that there was a significant difference in mean values of before and after treatment in relation to visual acuity for the distant vision of both eyes in 40 patients with a mean difference of -6.475, which is statistically significant as the P-Value < 0.008

DISCUSSION AND CONCLUSION
On the basis of the present study, the following conclusions can be drawn

- **Timira, kacha and linganasha** are the progressivestages of a disease. When vitiated dosha lodges in Prathamapatala as of netra it is termed as Timira and it is sadhya and in this study, Prathamapatalagata Timira is correlated with Simple myopia.

- Simple myopia is the most prevalent condition in the present era. It limits the

- Occupational choices with substantial social, educational, economic impact and contributes to increased risk of vision-threatening conditions.

- After completion of the study it can be concluded that age, education, aggravating factors, visual aid and family history have a significant role in the development of Timira (simple myopia)

- Clarity of vision was found to be improved with research drug.

- The mean value on visual acuity for the distant vision of 80 eyes of 40 patients at each level of study including follow up has improved from 51.600% to 63.725% which is statistically significant at p value < 0.001.

- The mean value of visual acuity for the distant vision for both eyes of 40 patients at each level of study including follow up has improved from 60.6500% to 67.2750% which is statistically significant at p value < 0.001.

- Effect of Vrisha Ghrita Paana and Ashchyotana is found to be significantly effective in reducing the signs and symptoms of Prathamapatalagata Timira/ Simple myopia.
References


