

A Randomized Comparative Clinical Trial to Evaluate the Add-On Effect of Viddhakarma with Goghrit Tarpana in the Management of Simple Myopia

Vaishnavi Nandakumar Kusare and Dr. Chandana Abhay Virkar

Postgraduate Scholar, Department of Shalakyatantra

Head of Department, Shalakyatantra

PDEA's College of Ayurved and Research Centre, Nigdi, Pune, Maharashtra, India

Abstract: *Background: Simple myopia causes blurred distance vision and may be accompanied by headache and eye strain. In Ayurveda, some visual manifestations have been conceptually correlated with Avyakta Darshana under Timira. This study evaluated Viddhakarma as an add-on to Goghrit Tarpana.*

Methods: In this randomized comparative clinical trial, 34 patients aged 10–35 years were allocated to Group A (Goghrit Tarpana with Viddhakarma; n=17) or Group B (Goghrit Tarpana alone; n=17). Subjective symptoms, visual acuity, autorefractometry, keratometry and axial length were assessed over 30 days.

Results: Both groups showed within-group improvement in blurring of vision, headache and eye strain. Percentage relief in Groups A and B was 29.27% and 25.00% for blurring of vision, 93.02% and 74.29% for headache, and 87.50% and 86.11% for eye strain, respectively. Most objective between-group comparisons were not statistically significant. The available dissertation reports significant between-group differences for headache and eye strain; exact p-values require verification.

Conclusion: Both interventions were associated with improvement in subjective symptoms. The study did not establish clear superiority of the combined intervention for objective refractive or anatomical outcomes over 30 days. Larger studies with longer follow-up are needed.

Keywords: Simple myopia, Timira, Goghrit Tarpana, Viddhakarma, Ayurveda.

I. INTRODUCTION

Myopia is a refractive error in which light focuses in front of the retina, causing blurred distance vision. Its prevalence is increasing globally, and management includes refractive correction and, where appropriate, interventions to control progression^[1]. Headache and eye strain may coexist and require appropriate ophthalmic assessment.

Ayurveda does not describe myopia as an identical diagnostic entity; however, some early visual complaints have been conceptually compared with Avyakta Darshana under Timira. Tarpana is a classical Netra Kriyakalpa, and Goghrit is traditionally described as Chakshushya.^{[2][3][4]} Viddhakarma is a para-surgical procedure whose adjunctive role in simple myopia requires clinical evaluation. This study compared Goghrit Tarpana alone with Goghrit Tarpana combined with Viddhakarma.

II. AIM

To evaluate the add-on effect of Viddhakarma with Goghrit Tarpana in the management of simple myopia.



III. MATERIALS AND METHODS

Study design and participants: A randomized comparative clinical trial included 34 patients aged 10–35 years who completed the study, with 17 participants in each group. Reported refractive criteria were spherical error from -0.50 D to -3.00 D and cylindrical error up to -1.00 D^{[5],[6]}. Exclusion criteria included significant ocular pathology, previous ocular surgery, diabetes mellitus and hypertension.

Interventions: Group A received Goghrit Tarpana with Viddhakarma; Group B received Goghrit Tarpana alone. The dissertation reports Tarpana for five days during the first and third weeks, using approximately 15–20 mL per procedure. Viddhakarma was described at Lalata, Apanga and Upanasika under aseptic precautions.

Outcomes and analysis: Subjective outcomes were blurring of vision, headache and eye strain. Objective outcomes included unaided and pinhole visual acuity, autorefraction, keratometry (K1 and K2) and axial length. Assessments were scheduled at baseline and days 7, 14, 21 and 30. The dissertation reports within-group testing and the Mann–Whitney U test for between-group comparisons, with $p < 0.05$ considered significant.

IV. RESULTS

Both groups showed statistically significant within-group improvement in blurring of vision, headache and eye strain. Reported percentage relief is shown in Table 1.

Symptom	Group A (%)	Group B (%)
Blurring of vision	29.27	25.00
Headache	93.02	74.29
Eye strain	87.50	86.11

Table 1. Percentage relief in subjective symptoms.

The reported between-group difference for blurring of vision was not significant (right eye $p = 0.3794$; left eye $p = 0.9860$).

Most objective between-group comparisons were not statistically significant: unaided visual acuity (OD $p = 0.1458$; OS $p = 0.9569$), pinhole visual acuity (OD $p = 0.5925$; OS $p = 0.7990$), K1 (OD $p = 0.0963$; OS $p = 0.7539$), axial length (OD $p = 0.0694$; OS $p = 0.4264$), spherical autorefraction (OD $p = 0.8450$; OS $p = 0.1250$) and cylindrical autorefraction (OD $p = 0.7139$; OS $p = 0.3151$). The left-eye K2 result reported as significant requires verification of its exact p -value.

No major adverse effects were reported in the available records. Some participants experienced mild, transient discomfort after Viddhakarma.

V. DISCUSSION

Both groups showed improvement in subjective symptoms, with greater reported headache relief in the combined-treatment group (93.02% versus 74.29%). Eye-strain relief was similar (87.50% versus 86.11%), while blurring-of-vision relief differed modestly (29.27% versus 25.00%) and was not statistically significant between groups. Exact inferential statistics for headache and eye strain should be checked before publication.

These findings suggest possible improvement in selected symptoms but do not demonstrate that either intervention reverses myopia or controls its progression. Most objective comparisons involving visual acuity, refraction, keratometry and axial length did not show significant between-group differences.

Interpretation is limited by the small sample, 30-day follow-up. Further studies should use a prespecified primary outcome, adequate sample size, longer follow-up and analysis that accounts for measurements from both eyes.

VI. CONCLUSION

Goghrit Tarpana alone and Goghrit Tarpana with Viddhakarma were associated with improvement in subjective symptoms over 30 days. Greater reported headache and eye strain relief was observed in the combined-treatment group, but most objective outcomes did not establish clear between-group superiority. The findings are preliminary and do not



establish efficacy for correcting myopia or controlling its progression. Larger, longer-term studies with verified statistical results and systematic safety reporting are required.

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