

ABSTRACT

Background:

There is a rise in the need for Complementary and Integrative medicine to provide long-term healing solutions in non-communicable diseases in general and Migraine Headache in particular. Knowing the limitations of conventional medical approach, the present study therefore evaluated the influence of the two Indian traditional systems of medicine, i.e., Ayurveda and Yoga as an integrative medical intervention. Changes following the use of Ayurveda and Yoga therapy were studied on symptoms, migraine-related disability, perceived stress, autonomic variables, muscle activity and quality of life in patients with migraine headache without aura.

Aims and Objective:

- To compile and understand the concept of migraine headache according to Ayurveda and Yoga texts.
- To scientifically validate the use of Ayurveda and Yoga in the management of migraine headache without aura.

Methodology:

This study was a Prospective, Open labelled, matched control trial comparing an Ayurveda-Yoga group (AY) with a Control group (CT) on symptomatic conventional treatment. 30 subjects who were recruited to Ayurveda and Yoga (AY) group underwent traditional *Pañcakarma* (Bio-purification) using *Virecana* (therapeutic purgation) followed by Yoga therapy, while 30 subjects matched for age and gender belonging to the Control (CT) group continued on symptomatic treatment (NSAID's) for 90 days. The subjects of both groups were administered the *Suśruta Prakṛti* Inventory on day 1 to understand individual body constitution. A Comprehensive Headache-related Quality of life Questionnaire (CHQQ) and

Visual analogue scale (VAS) were administered on day 1 and day 90 of the study. The symptom checklist, migraine disability assessment score, perceived stress, heart rate variability and surface electromyography of Frontalis muscle were measured on Day 1, Day 30 and Day 90 in both groups. Data were analysed using Repeated Measures of ANOVA followed by a post-hoc analysis with Bonferroni correction.

Results:

Out of the 60 subjects belonging to both groups, 46 (76.6%) had *Pitta* based *Prakṛti* either as *pravara* (primary) or as *madhyama* (secondary)). Following 90 days of intervention the AY group showed significant reduction in the migraine related symptoms viz., number of attacks, duration of each attack, associated with nausea and vomiting, severity of headache and analgesic requirements. The pain intensity reduced significantly ($p < .001$). There was a significant reduction in migraine disability and perceived stress scores were seen in AY group ($P < .001$). The low-frequency component of the heart rate variability decreased significantly, the high-frequency component increased and their ratio showed improved sympatho-vagal balance. The root mean square of the electromyography signal and integral electromyography of the frontalis muscle decreased in the AY group compared to the control group. There was a significant improvement in the total score of headache related Quality of Life ($p < .001$).

Conclusion:

An Integrated Yoga therapy and Ayurveda based intervention reduces symptoms, intensity of pain, migraine related disability and perceived stress. It also reduces the sympathetic arousal and muscle tension therefore improving the quality of life in migraine patients.