DOI: 10.7860/JCDR/2026/88435.22890 Abstract No.: 44

Effect of Aerobic Endurance Exercises and Relaxation Training on Young Adult having Migraine: A Comparative Study

JAHNAVI JAISWAL[1], REENA KUMARI[2], BHAWANA YADAV[3], PRIYANKA RISHI[4]

ABSTRACT

Introduction: Migraine is one of the most disabling neurological conditions worldwide. It causes repeated, severe headaches, often on one side of the head, along with nausea, vomiting, and sensitivity to light and sound. These symptoms are linked to neurovascular changes and possible brainstem dysfunction. Since medicines may not always be effective or suitable for long-term use, non-drug approaches like exercise and relaxation are gaining importance.

Aim: This study compared the effect of aerobic endurance exercise and relaxation training on reducing migraine severity and frequency in young adults.

Materials and Methods: A total of 20 subjects meeting the inclusion criteria were recruited and randomly divided into two groups (N=10 each).

- Group A: Performed aerobic endurance exercises for 15 days.
- Group B: Followed relaxation training for the same duration.

Outcome measures included the Numeric Pain Rating Scale (NPRS) for pain intensity and the Migraine Severity Scale (MIGSEV) for symptom impact. Pre- and post-intervention scores were statistically analysed using paired t-tests.

Results: Both groups showed a clear reduction in migraine symptoms after the intervention ($p<0.001$).

- Aerobic exercise group: NPRS scores improved from 6.2±2.10 to 4±2.11.
- Relaxation group: NPRS scores reduced from 5.8±1.62 to 4.1±1.52.

MIGSEV scores also decreased in both groups, showing improvement in severity and daily impact.

Conclusion: Both aerobic endurance exercise and relaxation training significantly reduced migraine symptoms over the 15-day programme. There was no significant difference between the two, suggesting that either method can be used as a safe, effective, and practical non-pharmacological option for managing migraine in young adults.

Keywords: Brainstem dysfunction, Migraine Severity Scale, Numeric Pain Rating Scale

PARTICULARS OF CONTRIBUTORS:
1. Postgraduate Student, School of Physiotherapy, SGT University, Gurugram, Haryana, India.
2. Associate Professor, SBS University, Dehradun, Uttarakhand, India.
3. Postgraduate Student, School of Physiotherapy, SGT University, Gurugram, Haryana, India.
4. Associate Professor, School of Physiotherapy, SGT University, Gurugram, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Priyanka Rishi,
Associate Professor, School of Physiotherapy, SGT University, Gurugram, Haryana, India.
Email: priyanka.physio@sgtuniversity.org