3rd International Conference on
Applied Microbiology and Infectious Diseases
August30-31, 2022 | Vancouver, Canada

Journal of Antimicrobial Agents ISSN: 2742-1212| Volume: 08

Advantages of Yoga in the Treatment of Primary Headaches



Roni Sharon
Department of Neurology, Tel Aviv University, Tel Aviv Israel

Primary headache and Migraine are common conditions in every society and are the 6th leading cause of disability worldwide, affecting approximately 12% of Americans and millions worldwide, resulting in an inability to attend work or school for at least 1 day every 3 months. Numerous pharmacological options exist for headaches treatment, but these therapies come at high cost and carry numerous potential adverse effects. Yoga is an ancient Indian non-religious technique that is known to aid in treatments of chronic conditions such as stress, anxiety, depression, hypertension and diabetes, and have a substantial effect on reducing headache burden. Research studies have been conducted to demonstrate the effectiveness of yoga lifestyle modifications and exercise on chronic pain syndromes, specifically in primary headache and migraine. Yoga was shown to improves quality of life, reduce headache intensity and headache frequency, when used alone or as an adjuvant to conventional therapy and show a significant decrease in headache frequency and intensity along with a reduction in the use of symptomatic medication. Yoga, being a slow non-exertional aerobic exercise, enhances mood and alleviates stress and depression in adults and invaluable treatment alternative in the pediatric population, where it can create a sustainable healthy lifestyle. Headache is one of the most common symptoms observed by healthcare professionals in their day-to-day clinical practice and the biggest contributor, affecting approximately 12% of Americans and millions worldwide [1]. It has been shown to be a main reason for decreased work or school productivity by 50% in almost half of affected individuals during an attack and thus has a significant impact on overall well-being and quality of life [2] and can result in an inability to attend work or school for at least 1 day every 3 months [3]. In the USA alone, migraine contributes to 86.5 million lost workdays each year and to an indirect annual cost of $9.3 billion [4]. Headache can be a secondary symptom of many neurological disorders as well as a primary disease and a risk factor for stroke, hypertension, diabetes, asthma and obesity [5]. It includes migraine headache, tension headache and trigeminal autonomic cephalalgias such as cluster headache and characterized as a recurrent disabling headache, pulsating or throbbing in quality, and moderate to severe in intensity. Migraines are often accompanied by photophobia, phonophobia, nausea, vomiting, and aggravated by routine physical exercise [6] and is classified into two categories: episodic migraine and chronic migraine. Chronic migraine is defined as 15 headache days per month with 8 days per month that meets the criteria for migraine and/or when a migraine medication such as a triptan is used for more than three months [7]. Episodic migraine is defined as 14 or less headache days per month [8]. Tension headaches are reported as recurrent episodes of headache which are typically pressing or tightening in quality, of mild to moderate intensity, bilateral in location and do not worsen with routine physical activity [9]. Globally, more than three billion people are estimated to be suffering from migraine and tension headache estimated to account for 11.2% of YLDs (years lived with disability) [10,11]. Prevalence is higher in females than in male with a changing ratio of 2:1 to 3:1, especially between the ages of 25 and 55 years [12]. For migraine, reported global agestandardized prevalence in 2016 was 14• 4% (13.8–15.0) overall: 18.9% (18.1–19.7) for women, and 9.8% (9.4–10.2) for men (Table 1). Worldwide, at any given time, it is approximated that 47% of adults have an active headache, 10% have a migraine, 38% have tension-type headache and 3% have a chronic headache. In the USA, headaches are the leading cause of outpatient visits to emergency department.

Yoga is an ancient Indian non-religious technique that combines both physical postures and breathing exercises known to decrease chronic pain syndromes by relieving stress. It may be implemented as an adjunctive approach in addition to pharmacologic therapy and other lifestyle modifications. Yoga has been shown to be effective in prevention and treatment multiple chronic conditions such as stress, anxiety, depression, hypertension and

Journal of Antimicrobial Agents ISSN: 2742-1212 | Volume: 08

diabetes and is known to have a substantial effect on reducing headache burden. [3] Yoga can dy disorder, where the disturbances in the mind influence the flow of Prana, which is the vital force/breath, resulting in physical problems and affecting the weakest system in the body [18]. Yoga can be practiced as a mind-body intervention on a daily basis that incorporates various stretching, breathing exercises, and asanas/postures, to create relaxation known as Shavasana [19]. The aim of this review is to provide comprehensive evidence for the practice of yoga as a more beneficial treatment modality for headaches than current pharmacologic treatment.

Literature Review : Journal articles were reviewed by using a PubMed search of the past 15 years for all studies pertaining to yoga as a treatment for headache. Attention was made to look for articles explaining how yoga can be used as a treatment for different types of headaches such as migraine and chronic tension type headaches, specifically the duration and frequency of yoga that was used and a description of the results, demonstrating the potential effects that yoga could have for patients. The review was analyzed by the number of subjects and implementation of yoga or complementary alternative medicine (which included yoga) as a treatment for headache. Articles that used yoga combined with alternative treatments along with pharmacological medications was not excluded, rather, purposely included showing how yoga could be used in conjunction with other medical treatments. Controlled prospective nonrandomized, cross-sectional, and comparative studies were included along with randomized control studies. The reviewed articles were not standardized by the number of patients nor by the populations from which patients were selected, which range from 19 patients to 23,393 patients. Yoga as remedy for headache in evidence-based literature There are several research studies that scientifically support the use of yoga to improve the quality of life of people with headaches [20]. Combined use of Ayurveda and yoga has been shown to significantly reduce migraine and stress. Specifically, for episodic migraine, studies have demonstrated that the application of integrative medicine, including yoga among other therapies, reduces overall stress level as well as headache frequency [21]. A 90-day study by Sharma et al. recruited 30 subjects in an Ayurveda and yoga group compared to 30 control subjects who received NSAID's to determine if Ayurveda and yoga could decrease symptomatology associated with headaches. The study showed yoga to significantly reduce pain intensity and improve the quality of life in patients with migraine. Specifically, the study was able to show that traditional Ayurveda along with yoga therapy decreased migraine symptoms [20]. Kisan et al. showed a similar reduction in pain intensity and demonstrated an improvement in vagal tone and reduction of sympathetic activity in such patients. Another study by Wells et al. showed reduction in migraine attacks after 8 weeks of mindfulness-based stress reduction, with decreased medication use in all groups, although the sample size was too small to detect a statistically significant affect.

Therefore, yoga could become an invaluable treatment alternative in the paediatric population as it can create a sustainable lifestyle, showing the need for conducting further studies on yoga and headaches as a potential treatment modality in the paediatric population. In a review where six randomized controlled trials were analysed investigating the effect of yoga on headaches, yoga exercise resulted in a significant reduction in headache intensity, frequency and in anxiety and depression. In particular, one randomized controlled trial compared the effect of yoga as a treatment for headaches, showing that there was a significant decrease in headache frequency and intensity along with a reduction in symptomatic medication used. This trial implemented yoga poses and breathing techniques to manage headaches and even though both groups received medication, the yoga group had significantly reduced frequency and intensity

Biography

Dr. Roni Sharon is a board certified Neurologist and a diplomat of the American Board of Psychiatry and Neurology (ABPN). He practices general neurology with a fellowship trained specialization in headache medicine.Dr. Sharon enjoys the challenging nature of neurology. He is particularly interested in . providing comprehensive care for many neurological conditions which often includes lifestyle changes, exercise and diet

Journal of Antimicrobial Agents ISSN: 2742-1212 | Volume: 08

in addition to medication and procedures. Dr. Sharon has authored multiple publications in medical journals. He has lectured on topics of Neurology all around the world. He takes a special interest in headache and migraine. Medical Training Education: Fellowship in Headache Medicine at Brigham and Women's Hospital, Harvard Medical School, Boston MA. Residency in Neurology at Mount Sinai Beth Israel Hospital, New York, NY. Internship in Internal Medicine at Mount Sinai Beth Israel Hospital, New York, NY.



References:

1. Elisabeth Hazard, Julie Munakata, Marcelo E. Bigal and Marcia F.T. Rupnow, et al. "The Burden of Migraine in the United States: Current and Emerging Perspectives on Disease Management and Economic Analysis." Value Health 12 (2009): 55–64.
2. Kim, Sang-Dol. "Effects of Yoga Exercises for Headaches: A Systematic Review of Randomized Controlled Trials." J Phy Ther Sci 27 (2015): 2377-2380.
3. Jonathan Jia Yuan Ong and Milena De Felice. "Migraine Treatment: Current Acute Medications and Their Potential Mechanisms of Action." Neurotherapeutics 15 (2018):274-290.
4. R.C. Kessler, V. Shahly, P.E. Stang and M.C. Lane. "The Associations of Migraines and Other Headaches with Work Performance: Results from the National Comorbidity Survey Replication (NCS-R)." Cephalalgia 30 (2010):722-734.
5. Ann I. Scher, Marcelo E. Bigal and Richard B. Lipton. "Comorbidity of Migraine." Curr Opin Neurol 18 (2005): 305–310.
6. Headache Classification Committee of the International Headache Society. The International Classification of Headache Disorders, 3rd Edition (Beta Version). Cephalalgia 33 (2013): 629–808.
7. SD Silberstein, J Olesen, M-G Bousser and H-C Diener, et al. "The International Classification of Headache Disorders, (ICHD-II)—Revision of Criteria for 8.2 Medication-Overuse Headache." Int Headache Soc 45 (2005): 1424-1425.
8. Zsolt Hepp, David W Dodick, Sepideh F Varon andPatrick Gillard, et al. "Adherence to Oral Migraine-Preventive Medications Among Patients with Chronic Migraine." Cephalalgia 35 (2015): 478–488.
9. Chowdhury, Debashish. "Tension Type Headache." Ann Ind Acad Neurol (2012): S83-88.
10. Theo Vos, Abraham D. Flaxman, Mohsen Naghavi and Rafael Lozano, et al. "Years Lived with Disability (YLDs) for 1160 Sequelae of 289 Diseases and Injuries 1990– 2010: a Systematic Analysis for the Global Burden of Disease Study 2010." Lancet 380 (2012): 2163–2196.
11. GBD 2016 Headache Collaborators. Global, regional, and National Burden of Migraine and tension-type headache, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet Neurol 17 (2018): 954–976.
12. Mahsa Zamani Boroujeni, Seyed Mohamad Marandi, Fahimeh Esfarjani and Mina Sattar, et al. "Yoga intervention on blood NO in female migraineurs." Ad biomedical Res (2015): 4.
- Rebecca C. Burch, Stephen Loder, Elizabeth Loder and Todd A. Smitherman. "The Prevalence and Burden of Migraine and Severe Headache in the United States: Updated Statistics from Government Health Surveillance Studies." Headache: J Head Face Pain 55 (2015): 21-24.
13. Rebecca Erwin Wells, Suzanne M. Bertisch, Catherine Buettner and Russell S. Phillips, et al. "Complementary and Alternative Medicine Use among Adults with Migraines/Severe Headaches." Headache: J Head Face Pain 51 (2011): 1087- 1097.
14. P. Rossi, G. Di Lorenzo, M.G. Malpezzi and J. Faroni, et al. "Prevalence, Pattern and Predictors of Use of Complementary and Alternative Medicine (CAM) in Migraine Patients Attending a Headache Clinic in Italy." Cephalalgia 25 (2005): 493-506.
15. Maria B. Ospina, Kenneth Bond, Mohammad Karkhaneh and Nina Buscemi, et al. "Meditation Practices for Health: State of the Research." Evid Rep Technol Assess 155 (2007): 1-263.
16. Field, Tiffany. "Yoga Research Review." Complement Ther Clin Pract 24 (2016): 145-161.
17. 18.M.S. Vasudha, N.K. Manjunath and H.R. Nagendra. "Lifestyle-A Common Denominator for the Onset and Management of Migraine Headache: Complementing Traditional Approaches with Scientific Evidence." Int J Yoga 12 (2019): 146.
18. Ravikiran Kisan, MU Sujan, Meghana Adoor and Raghavendra Rao, et al. "Effect of Yoga on Migraine: A Comprehensive Study Using Clinical Profile and Cardiac Autonomic Functions." Int J Yoga 7 (2014): 126.
19. Vasudha M. Sharma, Manjunath N.K., Nagendra H.R. and Csaba Ertsey. "Combination of Ayurveda and Yoga Therapy Reduces Pain Intensity and Improves Quality of Life in Patients with Migraine Headache." Comp Ther Clinic Pract 32 (2018): 85-91.
20. Rebecca Erwin Wells, Justin Beuthin and Laura Granetzke. "Complementary and Integrative Medicine for Episodic Migraine: an Update of Evidence from the Last 3 Years." Current Pain Headache Reports 23 (2019): 10.
21. Kawalinder K Girgla, Harsh Chalana, Harjot Singh. "Physiological Effect of Rajyoga Meditation on Chronic Tension Headache and Associated Co-morbidities." Pak J Phys 12 (2016): 22-25
22. Vasudha M.S., Manjunath N.K. and Nagendra H.R. "Changes in MIDAS, Perceived Stress, Frontalis Muscle Activity and Non-Steroidal Anti-Inflammatory Drugs Usage in Patients with Migraine Headache without Aura following Ayurveda and Yoga Compared to Controls: An Open Labeled Non-Randomized Study." Ann Neurosci 25 (2018): 250-260.
23. Rohit Bhatia, Dureja G.P., Manjari Tripathi and Manasi Bhattacharjee, et al. "Role of Temporalis Muscle Over Activity in Chronic Tension Type Headache: Effect of Yoga Based Management." Indian J Physiol Pharmacol 51 (2007): 333-344.
24. Helané Wahbeh, Siegward-M Elsas and Barry S Oken. "Mind-Body Interventions: Applications in Neurology." Neurology 70 (2008): 2321-8.
25. Bougea A, Spantideas N, Chrousos GP. "Stress Management for Headaches in Children and Adolescents: A Review and Practical Recommendations for Health Promotion Programs and Well-Being." J Child Health Care 22 (2018): 19-33.
26. D. Dalla Libera, B. Colombo, G. Pavan and G. Comi. "Complementary and Alternative Medicine (CAM) Use in an Italian Cohort of Pediatric Headache Patients: the Tip of the Iceberg." Neurological Sciences 35 (2014): 145-148.
27. Keri R. Hainsworth, Katherine S. Salamon, Kim Anderson Khan and Bryant Mascarenhas, et al. "A Pilot Study of Yoga for Chronic Headaches in Youth: Promise amidst Challenges." Pain Manag Nurs 15 (2014): 490-498.

NOTE: This is a sample abstracts. Conference/Journal name will be changed while publishing respective abstract in supporting journal website.