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Mini Review

Epilepsy: Yoga as Possible Treatment

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Abstract

In this mini-review are analyzed the beneficial and therapeutic effects of yoga in epilepsy. Yoga is one of the most popular mind–body discipline and approach to health maintenance. It helps people cope with stress and anxiety. In addition yoga is important for the postural tonic system because it is designed to stretch and tone the muscles and to keep the spine and joints flexible. Yoga typically combines stretching exercises and different poses with deep breathing and meditation. In 2016, the World Health Organization defined yoga as a complementary alternative medicine.

Yoga as an epilepsy treatment is an original, less invasive and cheaper way to look at therapeutic innovation.

A third of patients with epilepsy do not respond to anti epileptic drugs and may seek complementary and alternative treatment modalities. The relationship between yoga and epilepsy is a proportion between relaxing practice and unpredictable neuronal short circuits with consequent electric shocks. Yoga is intended to promote a state of psychophysical stillness that prevents or reduces the manifestation of seizures. This holistic approach reduces the costs of healthcare spending and increases the benefits.

Keywords: Yoga; Epilepsy; Treatment; Benefits

Introduction

Yoga is mentioned for the first time in the scriptures of the Vedas that date back to 2.500 a.C, but it is in the last collection that the foundations of the teachings of yoga are found, which focuses on the purpose of yoga practice which is to reach the individual Self with absolute awareness. Yoga improves brain function; 25 minutes a day is enough to see the effects on executive functions (ANSA) and the release of endorphins, also called pleasure hormones. The relaxing effect of yoga on muscle tone, induces the reduction of internal disorders and negative thoughts and conditions the posthumous control [1].

The ability of yoga to increase relaxation and induce a balanced mental state, improves its effects on sleep quality and reduces insomnia. The regular practice of yoga involves a significant reduction in the time taken to fall asleep, an increase in the total number of sleeping hours and the feeling of being rested in the morning. There are numerous studies that demonstrate the potential beneficial effects of yoga interventions on stress, anxiety and various neurological and neuromuscular pathologies [2]. The World Health Organization (WHO) has classified yoga as an integrative and complementary health practice (Concalves et al, 2016). It consists in the practice of specific postures (asanas), controlled breathing (pranayama) and meditation. The yoga practice integrates the physical, mental and spiritual components of an individual in order to improve health and well-being. [3] Yoga has four main ways: Karma yoga, Bhakti yoga, Jnana yoga and Raja yoga; each of them adapts to different characters or approaches to

life. Through breathing techniques, the "prana", or the energy accumulated within the body, accumulates. [4]

The interest of the Western medical profession on yoga and its effects Therapy dates back to 1910, when the psychiatrist Schultz in Germany investigated Raja Yoga and in 1932 proposed a psychotherapeutic tool called autogenous training.

Past research focuses on the benefits of yoga, the processes of slowing down aging or neurodegenerative diseases such as Parkinson's or Alzheimer's. Yoga is an adjuvant therapy improving mental activity. [5]

A recent study recognizes yoga as a complex intervention, similar to other forms of complementary and alternative treatments in epilepsy and improves, in these patients, the quality of life according to the "Satisfaction With Life Scale". [6]

There is an increase in the production of cortisol, melanin during the night and the reduction of norepinephrine. A study conducted on a sample of 20 children with epilepsy, showed that yoga is an additional treatment to drug therapy, which reduces seizures; a significant improvement of the EEG was found in the 6 months of monitoring. [7]

Discussion

Epidemiological data report that in Italy alone about 500,000 people are affected by epilepsy and every year there are 30,000 new cases. Epilepsy is the highest death rate after headache. Gestational and post-natal children and adults are more predisposed (often it is the manifestation of an outbreak already present at birth). The predisposition or presence of external risk factors such as excessive psycho-physical stress, changes in the sleep-wake cycle, excessive intake of alcohol or drugs may facilitate the appearance of a seizure. Epilepsy is properly treated with specific drugs or with the ketogenic diet or with surgery; to these is added yoga as "complementary therapy".

Patients with epilepsy who wish to play sports represent a population that is difficult to advise and manage because their condition puts them at risk of life-threatening events; however, most of these risks are manageable, But there are high-risk activities like aquatic ones. [8] Patients with frequent seizures should be guided to physical or sporting activity, where loss of consciousness or body control does not endanger life. The psycho-physical benefits of regular exercise are considered highly beneficial for epileptic subjects, who are usually sedentary, overweight and with higher rates of depression and anxiety. [9]

For this reason yoga is recommended in epilepsy, which causes mental, muscular and nervous tension. This method ensures relaxation and relaxation of the muscles and increased awareness of the body; it reduces the resting heart rate, increases endurance and control of seizures, with a reduction of seizures from 28% to 38% [10]

Yoga practice offers a combination of tools to reduce allostatic load through vagal afference resulting in increased parasympathetic activation and promotion of self-regulatory mechanisms [11]

Conclusion

The results of the analyzed studies lead to the conclusion that yoga is a valid method to reduce or prevent the complications of epilepsy and to know how to manage and control any epileptic seizures. Yoga promotes muscle relaxation of the body generally, improves the ability to control the breath and helps to focus on the present; shifts the balance of the sympathetic nervous system and the response of attack or flight to the parasympathetic system.

The practice of yoga is therefore calming and repairing; it regulates breathing and heart rate, decreases blood pressure, lowers cortisol levels. It is therefore essential to spread this fascinating and effective discipline. The kinesiologist has the important task of knowing the physiological processes peculiar to the yogic doctrine and the therapeutic effects in order to implement yogic-like work plans to maintain neuro-wellness-psychomotor in healthy subjects or affected by neurological diseases and specifically in epilepsy.

Regular and moderate exercise improves the function of the immune system and induces an increase in the number of circulating NK cells. [12]

Moreover, it is important to remember that exercise is therapy, preventive and rehabilitative. [13] Yoga, as exercise, has important conditioning on the state of health and well-being of epileptics.

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