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The key in the initial success of chronic pain treatment

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The key in the initial success of chronic pain treatment

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Yoga is a physical and mental practice with origin in old India. This discipline is always looking for an interior state of peace [1]. Apart from the spiritual goals, the physical postures or stances of yoga can help to diminish the anxiety and make the body more flexible. Yoga could be utilized as a physical therapy habit and a total training program. We recommend this kind of “special” exercise to all our patients suffering from chronic pelvic pain.

Physiotherapy (PT) is a health care career and is the therapeutic use of physical agents or means, such as massage, exercises, etc. The World Health Organization (WHO) in 1958 defined physical therapy as: "The science of treatment through: physical means, therapeutic exercise, massage and electrotherapy. Moreover, PT involves performing electrical tests and manuals to circumscribe the value of the affectation and muscle strength tests to determine functional capabilities, range of joint motion and vital capacity measurements as well as diagnostic tools for controlling evolution". For us, this discipline is a great tool in creating a synergy between physiotherapy and medical treatments for pain relief.

Both work together with the same end, to relieve the chronic pain in patients suffering from various conditions.

Firstly, Yoga and PT have a common feature: the stretching. Stretching refers to the practice of gentle exercises to help prepare the muscles for greater effort and to increase the range of motion in the joints. Muscles are lengthened beyond their rest position, which is beneficial to a healthy body. It also helps the body get into shape as it works all the muscles to achieve an optimal result. The benefits of stretching would include: increasing joint range; increasing flexibility of the groin muscle and tendon, fascia, ligaments, joint capsule and skin; help heartbeat; decreasing the amount of lactic acid in the muscles; avoiding the most common sports injuries; Improving the coordination of agonist-antagonist muscles and preventing muscle stiffness after exercise. All this could be possible in accordance with the paper by Weerapong and colleagues [2]. In the same way, Cunha and colleagues compared the effect of conventional static stretching and muscle chain stretching in female patients suffering chronic neck pain. They showed that conventional stretching and muscle chain stretching in association with manual therapy were equally effective in reducing pain, improving the range of motion and quality of life in these females [3].

Another common characteristic is relaxation. Relaxation induces a release of tension, a return to equilibrium. Pain is worsened by stress, and stress could be magnified by psychological anxiety. Stretching induces mind relaxation and helps the body sort through trauma. Hypercortisolemia is well-known in depression and stress. A study of Yoga has demonstrated useful to reduce the parameters of stress, including cortisol levels. This open-labeled study

divided in three groups (yoga alone, yoga along with antidepressant medication and antidepressant medication alone) was conducted at a tertiary care psychiatry hospital. A validated yoga module was used as a therapy taught over a month and to be practiced at home daily. 54 out-patient depressives were rated on Hamilton Depression Rating Scale with serum cortisol measurements at baseline and after 3 months. The findings support that yoga may act at the level of the hypothalamus by its 'anti-stress' effects (reducing the cortisol), to bring about relief in depression [4].

Another common aspect is pain desensitization. Desensitization is a method to decrease or remove a noxious pain stimulus.

PT goals included pain management, edema control, desensitization and functional training. Pain desensitization would be the application of repeated stimuli that produce no pain or discomfort, but may be unpleasant in hypersensitive area. The elements used depend on the involved area and consist of textures, pressure, vibration, heat or cold.

The progression is performed gradually as the stimulus reacts to a lower response of displeasure up to a greater response of discomfort. The sensory stimulus ranging from low to high displeasure include: silk, cotton, rugged or rough textures. The progression may take many days or weeks according to sensory disturbance levels. Desensitization can minimize pain response to various stimuli. However, the affected area may dislike contact with a particular stimulus. The goal is to inhibit or interrupt routine interpretation of the stimulus as painful. This does not ensure that this stimulus is pleasant or enjoyable, but yes, the response given is not extremely painful. To support these claims, we have found in the medical literature one a randomized clinical trial controlled by Whitehurst and colleagues [5], they published a study with the following data: a total of 402 patients were randomly assigned to a brief pain management program (BPM) or PT. They adopted a health care perspective, examining the direct health care costs of low back pain. Outcome measures were quality-adjusted life years and 12-month change scores on the Roland and Morris disability questionnaire. They concluded that PT is a cost-effective primary care management strategy for low back pain. However, the absence of a clinically superior treatment program raises the possibility that BPM could provide an additional primary care approach, administered in fewer sessions, allowing patient and doctor preferences to be considered.

In the same manner, Yoga stretches muscles, soft tissue and increases the range of motion in joints. Yoga will also give you a clear way to take care of your body, and teach you how to take charge of your experience even when you are in pain. To support these claims, we have found in medical literature a controlled study of a yoga-based protocol by Williams and colleagues [6]; they fitted their Iyengar yoga intervention to address back pain. Patients receiving yoga showed significant reductions in pain and functional disability, compared to the controls, after 3 months follow-up.

From another point of view, we can see the relationship between Yoga and PT with sleep. Yoga may aid the treatment of insomnia through relaxing physical exercises and techniques of breathing thereby promoting regular sleep without having to take medicine to induce sleep. Medicine can interfere with the natural sleep cycle of the body and have side effects. Those who have difficulty falling asleep or staying asleep can try yoga sequences of deep relaxation

and meditation, for example: lying down for half an hour before bedtime to promote a pleasant dream. The causes of insomnia will be removed by the continuous practices of yoga. To support these claims, we have found in medical literature a randomized clinical controlled trial; Hariprasad and colleagues [7] reported a manuscript with the following data: a total of 120 subjects from nine elderly homes were randomized in to yoga group (n=62) and waitlist group (n=58). Subjects in the yoga group were given yoga intervention daily for 1 month and weekly until 3 months and were encouraged to practice yoga without supervision until for 6 months. Subjects in waitlist group received no intervention during this period. Subjects were evaluated with World Health Organization Quality of Life questionnaire and Pittsburgh Sleep Quality Index in the baseline and after 6 months. The authors concluded that Yoga improves the quality of life and sleep quality of these patients living in old age homes.

PT may contribute to avoiding insomnia, through hydrotherapy, electrotherapy or lymphatic drainage, etc, constituting an "ideal" method of relaxation, especially when applied to the face, head and neck. Sleep disturbance is very common clinical symptom in patients with chronic pain, related to physical inactivity and depression. To support these claims, we have found in medical literature a randomized clinical controlled trial; Eadie and colleagues [8] reported a paper with the following data: 20 participants with chronic low back pain were randomly assigned to a walking program, supervised exercise, or usual physiotherapy (advice, manual therapy, and exercise). Sleep was assessed by Pittsburgh Sleep Quality Index, Insomnia Severity Index and Pittsburgh Sleep Diary. The authors determined the effectiveness of physiotherapy for sleep disturbance in chronic low back pain.

In conclusion, if we have any patient suffering chronic pain, they should initially fulfill three conditions to alleviate their chronic pain: stretching of the body muscles, to sleep as well as possible and to maintain a stress free mind. All of this is possible to obtain in some measure through Yoga, PT and traditional medicine working together.

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