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Effects of yogasanas on knee complex in health and disease

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Improvement in flexibility of soft tissues by yogasanas was reviewed. Considering this, tightness of various muscles was checked which have direct influence on the knee complex. Hip flexors, hamstrings and overall flexion by Finger-floor distance was outcome measures for flexibility. In Part-I total of 165 yoga practitioners were screened with self-explanatory questionnaire for inclusion and onetime assessment for long-term retrospective evaluation and this was done on 105 (55 male and 50 female) participants. Prospective studies include 6 months protocol- Part-II Healthy adults: 25 (10 M and 15 F) pre-post set of yogasanas practice. Hip flexor stretch improved by a mean of 10 degrees as measured by hip extension with 90 degrees of flexion at the knee. Hamstrings flexibility increased by a mean of approximately 9 degrees as measured by the popliteal angle. Global spine and hamstrings flexibility changed by 2.5 centimeters. Hip adductors and internal rotators showed improved flexibility at complex pose, baddha-konasana by 14 degrees. Body mass index did not vary. In Part-III fifty patients with knee osteoarthritis were given yogasanas protocol. In Part-IV combined protocol of yogasanas and physiotherapy. Statistically significant results in flexibility components, knee and osteoarthritis outcome score and American Knee Society knee score were observed. No practitioner reported experiencing an adverse effect or event due to practice. Yogasanas improved flexibility, correct asymmetry and improved function.

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Aquatic therapy and Parkinson's: A clinical trial evaluating the effects on pain perception, balance and functionality

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Introduction: Two main symptoms of Parkinson's disease are the decline in balance, both static and dynamic, as well as the loss of independence during the performance of daily activities.

Aim: The aim of this study is to determine the effect of a program of aquatic Ai Chi on the perception of pain, the maintenance of balance and the functional independence of patients with Parkinson's.

Method: A randomized clinical trial was conducted with 15 patients diagnosed with Parkinson's (Hoehn and Yahr range: 1-3) participated in a program of aquatic Ai Chi lasting 10 weeks, with sessions held twice weekly compared to another group of 15 patients (control group) who received therapy on dry land. The VAS for pain, Tinetti, Berg, TGUG, FTSTS and UPDRS scales were used.

Results: Three assessments were performed for each group (pre-test, post-test and post-test 2). The Wilcoxon, Friedman and Student's t-test for related samples were performed in order to analyze the effect of each therapy, according to each case. A significant improvement ($p < 0.001$) was found when comparing the results of the experimental group with the control group, based on the three assessments. The pain perception values decreased, whereas balance and functionality showed significant improvement, which were maintained even one month after the intervention.

Conclusion: A water-based Ai Chi program appears to be a feasible treatment option for patients diagnosed with mild to moderate Parkinson's disease for the treatment of pain, balance and functional capacity.

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