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Efficacy of special rehabilitation treatment in patients with Low Back Pain (LBP)

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Statement of the Problem: Many of the causes of back pain disease can be anatomically localized and described using modern imaging methods. One of the most common diagnostic is LBP. It is one of the most frequent conditions we deal with in our rehabilitation clinic. The main goal of our treatment is relief the pain of the patient and set them to the best momentary body posture. We achieve these goals by our special rehabilitation treatment and exercises called The INFINITY method® (IM). IM uses active movement and passive therapy. The three-dimensional rehabilitation therapy and movements stabilize and centralize the posture, this also helps patients with LBP. The IM is used as a treatment for patients with LBP and also as a preventive exercise program. Our purpose was to test the efficacy of the rehabilitation method IM in patients with LBP.

Methodology & Theoretical Orientation: The quasi-experimental and non-randomized study was designed for repeated measurement in our rehabilitation clinic. The study was approved by our ethical committee. All participants were volunteers and for the study of 20 patients the data was obtained from measurements on the DIERS (DIERS International GmbH, Schlangenbad Germany) which ran from January 2018 to April 2018, also within a 4-week stay. The patients with LBP (n=20, age 57.2±17.4 yrs.) all received a 60-minute IM therapy per day for twenty days over a four-week period. We measured differences in Sagittal imbalance (VP-DM) (mm), Coronal imbalance (VP-DM) (mm), Kyphotic angle (ICT-ITL) (°), Lordotic angle (ITL-ILS) (°) by DIERS 4D. Average analysis before and after the rehabilitation treatment. Another dependent variable, the Visual Analog Scale (VAS) of low back subjective pain scores was measured before and after the therapy. Data was analyzed using a Paired T-test and Wilcoxon signed-ranks test, P < .05.

Findings: The study shows that the greatest improvement occurred in patients at the coronal imbalance. Improvements occurred in 17 out of 20 patients. The same success has been achieved at the VAS score. 16 out of the 20 patients showed improvement at the Kyphotic angle. Distance of the 13 patients were decreased at the sagittal imbalance. The size of the Lordotic angle was positively changed for 12 of the patients.

Conclusion & Significance: The Results of the study show the efficacy of IM. The main impact of the study was the decreased VAS of low back subjective pain scores for the majority of the patients.

Biography

Michaela Tomanová is the Director and the Senior Consultant of the Rehabilitation Clinic in Brandys nad Orlicí in the Czech Republic. She invented the unique rehabilitation technique called INFINITY method® (IM), which is based on biomechanics, neurophysiology and anatomy. She introduced her method to the students at various Czech universities (Charles University, Czech Technical University in Prague) through lectures. She also organizes courses for the public and for the doctors and physiotherapists working in rehabilitation.

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