

عنوان مقاله:

Manipulation Effect on Lumbar Kinematics in Patients with Unilateral Innominate Rotation and Comparison with Asymptomatic Subjects

محل انتشار:

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تعداد صفحات اصل مقاله: 8

نویسندگان:

M Zamanlou - School of Rehabilitation Sciences, Department of Physical Therapy, Iran University of Medical Sciences, Tehran, Iran

M Akbari - School of Rehabilitation Sciences, Department of Physical Therapy, Iran University of Medical Sciences, Tehran, Iran

A A Jamshidi - School of Rehabilitation Sciences, Department of Physical Therapy, Iran University of Medical Sciences, Tehran, Iran

A Amiri - School of Rehabilitation Sciences, Department of Physical Therapy, Iran University of Medical Sciences, Tehran, Iran

I Nabiyouni - School of Public Health, Department of Kinesiology, Indiana University, Bloomington, United State of America

خلاصه مقاله:

Background: Lumbar motion analysis is used as a clinical method in the diagnosis and treatment of low back pain (LBP). So far, no studies have shown if manipulating the sacroiliac joint (SIJ) will change spinal kinematics. Objective: The main objectives of this study were to investigate the effects of SIJ manipulation on the lumbar kinematics in subjects with innominate rotation and to compare lumbar kinematics among experiment and control groups. Material and Methods: This study was a quasi-experiment-control trial study. ۲۱ LBP patients with anterior or posterior innominate rotations in experiment group and ۲۲ asymptomatic subjects in control group were evaluated. Lumbar kinematic variables (LKV) include lumbar range of motion (ROM) and speed, lumbar lateral flexion and rotation asymmetry were evaluated using Qualysis Track Manager (QTM) twice within two days in control group, and these parameters with pelvic asymmetry and disability were tested before and after intervention in the experiment group. Results: While pre-intervention experiment group exhibited significantly lower lumbar lateral flexion ($p=0.0001$), rotation ($p=0.008$) ROM and lower lateral flexion speed ($p=0.014$), post-intervention experiment group exhibited significantly lower lumbar lateral flexion ($p=0.01$) ROM in comparison with control group. Pelvic asymmetry ($p=0.049$) and disability ($p=0.01$) significantly decreased in the experiment group after manipulation, but LKV did not change significantly after the intervention ($p>0.05$). Conclusion: Experiment groups had different lumbar kinematics in comparison with control group before and after SIJ manipulation. Despite the changes in pelvic asymmetry and disability, intervention had no effect on lumbar kinematics.

کلمات کلیدی:

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