

## **SHORT-TERM EFFECTS OF USING TWO PHYSIOTHERAPEUTIC METHODS ON RESPIRATORY FUNCTION AND TRUNK MORPHOLOGY IN PATIENTS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS**

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**Objective:** The assessment of the influence of short-term, intensive joint physiotherapy (DoboMed and OMT ) on the function of the respiratory system and trunk morphology in the in-patient group with Adolescent Idiopathic Scoliosis (AIS). **Design:** A randomized, controlled trial with a 3-weeks follow up. **Subject:** Forty girls with AIS, range of Cobb angle 15-35 degree average. **Methods:** Participants were divided into two randomized subgroups-control group DoboMed (n=21) and experimental group OMT/DoboMed (n=21). DoboMed was applied only in the control group. DoboMed and manual therapy were applied in the experimental group. Derotational stretch mobilization techniques in selected segments of thoracic spine were used as preparation for DoboMed exercises. Physiotherapy was continued for 3 weeks. The spirometry, maximal inspiration and expiratory pressures ( $P_{I_{max}}$ ,  $P_{E_{max}}$ ), kyphosis and the angle of trunk rotation ATR in thoracic spine were estimated before and after therapy. **Results:** MIP and MEP were increased significantly in both groups ( $p < 0,01$ ). Significant changes were observed in the experimental group as : increasing of forced expiratory volume in one second ( $FEV_1$ ), ( $p < 0,05$ ), increasing of thoracic kyphosis ( $p < 0,01$ ) and decreasing of ATR ( $p < 0,05$ ). **Conclusions:** The magnitude of the difference between the variables tested does not allow to assign a considerable role to the Orthopedic Manual Therapy - OMT in the preparation process for the active asymmetrical DoboMed exercises.

**Trial registration:** NCT 01250860