E-Poster
EP-570

Hyperkyphosis and Joint Hypermobility in Adolescents- Case Control Study

Topic: Specific Target Groups (Children, Women, Elderly, Athletes, Musicians, Refugees, Ethnic Groups, Workers, and Others)

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BACKGROUND

Sagittal plane curvatures are essential for body balance in the standing position. Excessive joint mobility may contribute to abnormal sagittal curvatures due to musculoskeletal imbalance and an unstable development base. This study aimed to investigate the association between radiologically confirmed hyperkyphosis in standing position and joint hypermobility in adolescents.

METHODS

This case-control study included 66 out of 191 screened patients. Lateral standing radiographs were evaluated, and adolescents with kyphosis > 40 degrees were included in the study group. Joint mobility was assessed using the Beighton score. The results were compared with a sex- and age-matched control group. Continuous data were analyzed using Student's t-test or Mann-Whitney U test, where appropriate. Categorical data were analyzed using chi-squared test or Fisher's exact test.

RESULTS

The study group comprised 22 girls and 21 boys aged 9–17 years, with radiologically confirmed hyperkyphosis. The control group included 59 girls and 43 boys aged 9-18 years. Of these, 14 (32.6%) adolescents in the study group and 42 (41.2%) in the control group met the criteria for joint hypermobility (Beighton score ≥ 4). The difference between the groups was not statistically significant ($p = 0.415$).

CONCLUSION

Our study found no significant association between joint hypermobility and thoracic hyperkyphosis, suggesting that hypermobility does not predispose adolescents to radiologically confirmed excessive thoracic kyphosis.

Statement of Disclosures

None

Doi: 10.5606/archisprm.2026.EP-570

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