

Comment on the Article “Foot Function Disorders in Children with Severe Spondylolisthesis of L5 Vertebra”

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The more focused is the expertise area of an orthopaedic specialist dealing with particular segment of the locomotor system, the more important is the collaboration of different specialists for analysis of combined or relatedly aggravating pathologies. That is why the title of the present paper will inevitably attract specialists in adolescent orthopaedics while lower limb disorders quite often complicate severe displacement of the L5 vertebra. Often, it is the neurogenic pathology which urge a spine surgeon to take tough tactical decisions: is it sufficient to limit treatment to stabilization of L5-S1, is the reduction of listhesis is needed and to which extent, what three-dimensional changes as well as unfavorable clinical complication can follow after the correction? Given the contradictory views on above aspects, the interest in the stated subject is natural.

The authors performed single- and double-bearing plantographic examination of 12 patients aging from 8 to 18 years with grade

III-V spondylolisthesis of L5 and then made the comprehensive analysis of obtained results. Comparable healthy adolescents were similarly examined in the control group. The authors demonstrated changes in the anatomical and functional status of feet changes in cases of severe spondylolisthesis that are manifested by feet rigidity, change in shape and bearing pattern.


Everything looks quite logical and valid, and based on sound statistical analysis. But for some reason, when you read the paper there is a feeling of some dissatisfaction. In attempts to explain this fact I noted the following:


– first, observation of disorders in bearing foot function in severe spondylolisthesis is nothing new: anatomical and functional changes, specifically in distal segments of lower limbs, are one of the typical complications of mentioned spine pathology;

– second, inclusion of patients with various displacement grades (III-V) into the study and large age range (10 years include three physiological groups — pre-puberty, puberty and adolescence) allows a reader to expect examination of correlations between peculiarities of vertebral pathology, anatomical and functional maturity and foot changes, yet those are not covered in the paper;

• *Comment on the Article*

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– and finally, the authors honestly point out that patients with severe neurological deficit (Frankel A-C types) with marked supination foot deformities and bilateral grade II flatfoot were excluded from the analysis. It becomes obvious that from a big cohort of clinically severe and surgically complex patients with L5 spondylolisthesis of III-V grades by Meyerding the authors selected a limited group (only 12 patients) based on two main criteria: absence of severe neu-

rological deficit and ability to perform full-fledged plantographic examination.

So, exactly the absence of clear methodological structure of the paper (including abstract) can explain dubious perception of this work: the epidemiological, clinical and statistical data that one expects to see after reading the capacious title lie far beyond the framework of an interesting but rather narrow question described in the paper: what plantographic changes are observed in such patients.

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