



WEB OF SCIENCE

## CORRELATION BETWEEN POSITIVE FUKUDA TEST AND IDIOPATHIC JUVENILE SCOLIOSIS

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Balneo and PRM Research Journal

DOI: <http://dx.doi.org/10.12680/balneo.2021.452>

Vol.12, No.3 September 2021

p: L18

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### Abstract

**Introduction.** Multiple factors could be involved in the development of idiopathic juvenile scoliosis, including neurosensory pathways and, potentially, an elective disorder of dynamic proprioception. The purpose of this study was to determine whether routine balance tests such as the Fukuda test could be used to demonstrate an elective alteration of dynamic proprioception in JIS and if the rotational component of the test confirmed the direction of the spine curvature.

**Material and methods.** This is a small retrospective study conducted in the Children's Neurorehabilitation Ward of Techirghiol Balneal and Rehabilitation Sanatorium between May of 2019-May of 2021. There were 45 files checked, 29 girls and 16 boys, ages varying between 9 and 17, Cobb angles between 15° and 34°, in 39 cases the Fukuda test was performed. The test was done with 50 steps, eyes closed and distance of displacement was measured in cm and the angle of rotation in degrees.

**Results.** Fukuda test was modified for 30 patients. The higher the Cobb angle the more rotational component was involved. This result confirms our initial idea that dynamic proprioception is altered electively in JIS.

**Conclusion.** These findings confirm recent JIS studies.