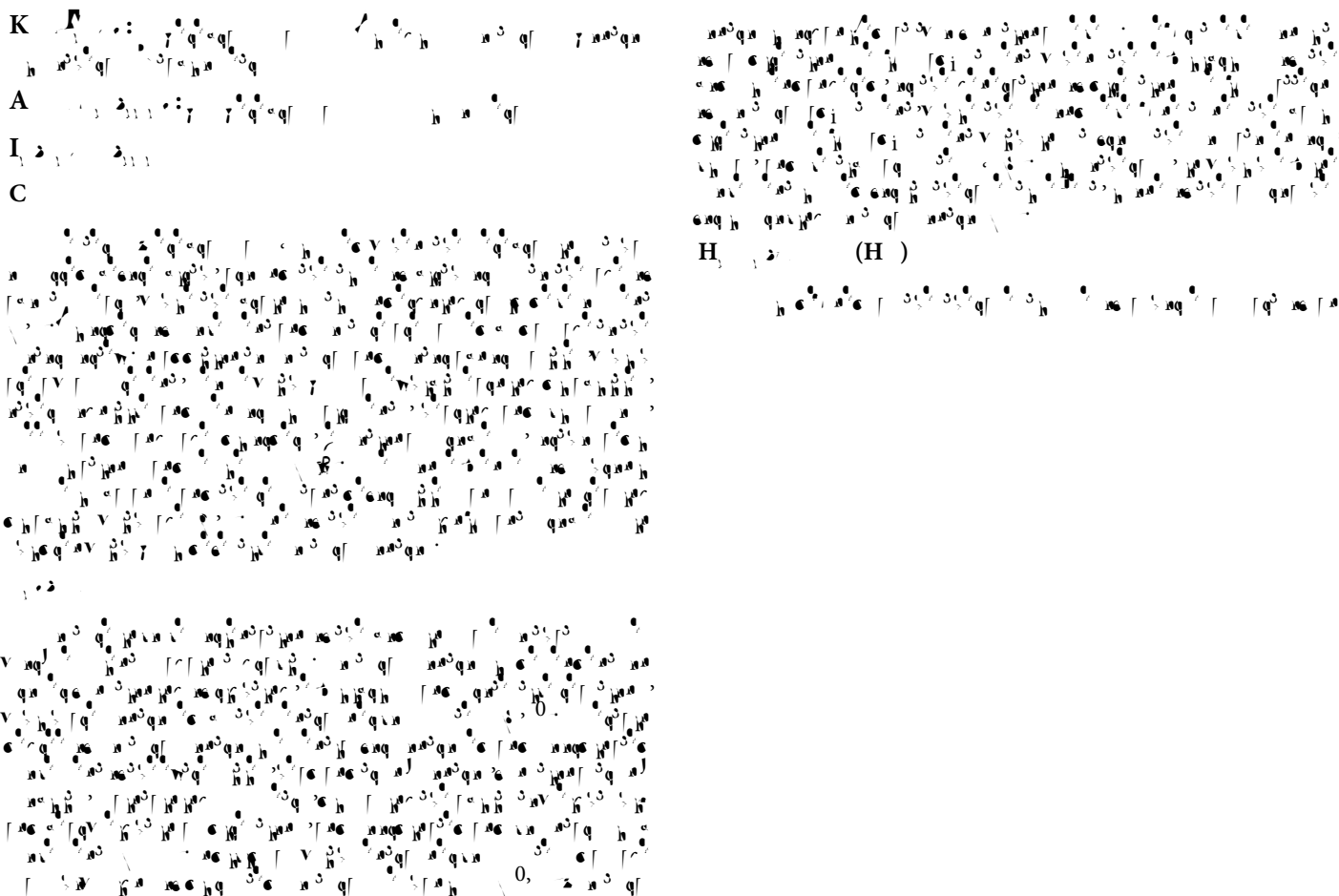


# Postural Stability after Hippotherapy in an Adolescent with Cerebral Palsy

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coordination, muscle tone, joint range of movements, weight bearing, gait, and sensory processing [19,24-26].

### Stabilometry

Stabilometry is one of the most commonly used methods for measuring the parameters of postural stability.

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decreased by 30.48%, in the anteroposterior direction by 35.06%; the stabilogram area decreased by 59.82% and IVI decreased by 15.10%. All the results for the total path length of the COP, path length in the mediolateral and anteroposterior directions, stabilogram area and IVI of the subject are presented in table 1. The pretest GMFM score was 79% compared to 86% at the conclusion of the test period after five weeks' hippotherapy. The 7% improvement was found only in parts D (standing) and E (walking, running and jumping).

## Discussion

The presented case study provided information on the suitability of the proposed measurement protocol for the assessment of the effects of hippotherapy on the stability of posture or improvement in balance in people with sensorimotor disturbances. We established that it is possible to carry out the proposed modified sensory organization test in its entirety before and after hippotherapy in a person with the spastic form of CP. The subject was able to maintain the position for the 60 seconds required to obtain the data under all measurement conditions, in the spontaneous feet position, with feet together, with eyes open and closed and on a soft base. Sixty seconds represents the period for obtaining data that provides greater reliability and reproducibility of obtained stabilometric data [28]. We found that the parameters of COP movement after hippotherapy decreased when the subject had his eyes closed.

pos2bi4 pson1s33( )-2(t)-34744(u)resit n3(s )-31(e-4(n8e)-13(t)-34(h)1(e)--11(t)-210-10(s)-12(o)4(n110-131(me)-9(t)-110-1 )-171(c)-11(l)01

