CLINICAL SIGNIFICANCE OF RECTUS FEMORIS AND HAMSTRING TESTS IN KNEE FLEXOR CONTRACTURES IN CHILDREN WITH CEREBRAL PALSY

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Relevance of the topic. In children with cerebral palsy, gait dynamics are often associated with flexion contractures in the knee joint. These contractures, if not identified in a timely and accurate manner, lead to a decrease in the child's ability to walk, maintain vertical posture, and overall quality of life. Therefore, functional clinical tests, including rectus femoris and hamstring tests, are of great importance in the early and accurate diagnosis of this pathology. In the study, 50 patients with cerebral palsy were clinically and functionally assessed using rectus femoris and hamstring tests, electroneuromyography and the Ashworth scale. In addition, gait monitoring, radiological analyses, and rehabilitation were performed.

In the rectus femoris test, a contracture of the rectus femoris muscle was assessed as tenogenic in cases where the flexion angle was more than 30°, the electroneuromyographic activity was more than 85 μV, and the Ashworth scale was ≥2. In the hamstring test, the inability to passively straighten the knee when the thigh was raised to an angle of 90° indicated hamstring muscle contraction. In such patients, it was found that the electroneuromyographic activity was high and the degree of contracture was increasing. The use of these tests has been confirmed as an important clinical tool in the differential diagnosis of pathogenesis, distinguishing myogenic and tenogenic forms, and choosing the optimal treatment strategy.

Conclusion: The clinical and diagnostic value of the rectus and hamstring tests in distinguishing the type of contracture and individualizing treatment in patients with cerebral palsy is high, the test results have been used to more accurately determine surgical indications, and improved functional outcomes in patients at 12 months of follow-up after surgical treatment have been proven.

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