



## Effect of spasticity on muscle thickness of hip adductors

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**Abstract : Background:** Spasticity is a widespread problem in cerebral palsy (CP) as it affects function and can lead to musculoskeletal complications. muscle thickness is defined as the perpendicular distance between the deep and superficial aponeurosis. The purpose of this study was to study the effect of spasticity on muscle thickness of hip adductors in spastic children.

**Subjects and Methods:** Thirty five (20 spastic diplegic and 15 normal) children from both sexes with age ranged from 2 to 5 years and the spastic children were able to stand holding on, participated in this study. Muscle architecture parameters (pennation angle and muscle thickness) were measured by ultrasonography, spasticity was measured by MAS.

**Results:** There was a significant difference in muscle thickness of left hip adductors between both groups, more in the normal group ( $p < 0.05$ ), while there was no significant correlation between spasticity and muscle thickness of both right adductors ( $p = 0.529$ ) and left adductors ( $p = 0.613$ ).

**Conclusion:** Spasticity has an effect on decreasing the muscle thickness in spastic muscles of spastic children.

**Key words:** spasticity, muscle thickness, diplegic children.