

## ASSESSMENT OF SPONTANEOUS MOTOR ACTIVITY IN PREDICTING NORMAL NEUROMOTOR DEVELOPMENT IN PRETERMS

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Conventional methods of neurological assessment of newborns and infants are in daily clinical use. Since preterm newborns often have multiple risk factors for further neuromotor developmental disorders, this study aimed to determine the predictive value of spontaneous motor activity in preterms during the fidgety period for normal neurological and functional outcomes at the age of 24 months.

The study was performed as a prospective clinical study and included 80 preterm children. Observation of spontaneous motor activity was carried out according to the basic principles of Prechtl's method in the period 50–54 weeks of postmenstrual age.

All participants who showed normal fidgety movements during this period had normal neuromotor development after 24 months. Among participants with a final neurological outcome of minimal neurological dysfunction after 24 months, 73% showed abnormal fidgety movements. In the study, there were no subjects who had a normal presentation of fidgety movements and later, at the age of 24 months, were found to have neurological deficits and clinical signs suggesting the subsequent development of cerebral palsy. Preterm infants with (very) low birth weight, those born before the 30<sup>th</sup> gestational week, and those with a low Apgar score have a higher chance of neurodevelopmental deviations.

Such a high predictive value of normal general movements in period 50–54 weeks of postmenstrual age, confirms the practical importance of assessing general movements and the need for developmental follow-up for all preterm infants.

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