

LACK OF FIDGETY MOVEMENTS AT 15 WEEKS POST-TERM RELATES TO CEREBRAL PALSY AND ADVERSE COGNITIVE OUTCOME IN PRETERM BORN CHILDREN AT 10 YEARS OF AGE

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Background and aims: The General-Movement-Assessment (GMA) is a powerful predictor of later neurological outcome in preterm infants. We wanted to determine whether GMA status during the Fidgety period at 15 weeks post-term, in preterm children can predict motor and cognitive outcomes at age 10.

Methods: A prospective follow-up study performed at the St.Olav's University Hospital, Trondheim, Norway. Thirty-four infants were included with mean gestational age 27.5weeks (SD 3.0w) and mean birth weight 1008g (SD 462g). The GMA was performed at mean 15 weeks post term. Fidgety movements were classified as absent (F-) or present (normal (F+), no-continuous (F+/-), or abnormal (AF) fidgety). At age 10 the Wechsler Intelligence Scale for Children-III (WISC-III) was performed to assess IQ-status. Differences in group means were compared.

Results: Six infants had F- and all of them developed CP at age 10. Two of three children with F+/- had CP. One child with F+ had CP.

Cognitive results are shown in table 1.

IQ measure	Absent fidgety	Present fidgety	<i>p</i>
	<i>n=6 mean</i>	<i>n=28 mean</i>	
Total-IQ	57.2(SD 25.5)	95.7(SD 21.7)	<i>0.024</i>
Verbal-IQ	69.2(SD 24.0)	95.3(SD 18.3)	<i>0.044</i>
Working-memory-index	68.3(SD 17.5)	92.4(SD 16.9)	<i>0.018</i>
Performance-IQ	48.0(SD 20.2)	97.2(SD 22.1)	<i>0.001</i>
Perceptual-organization-index	59.2(SD 14.5)	97.3(SD 20.3)	<i>0.001</i>

[Table 1]

Conclusions: Preterm born children without fidgety at 15 weeks post term had cerebral palsy and lower total- and verbal-IQ as well as working-memory deficits at age 10.