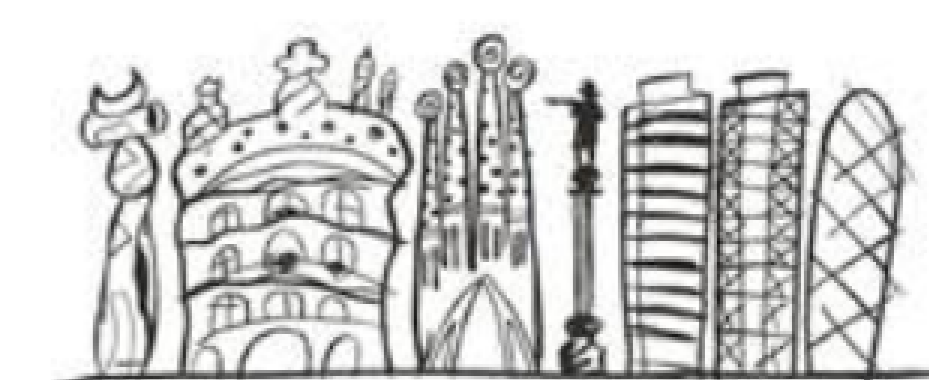


Psychomotor development in children born small for gestational age (SGA) during early infancy.



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BACKGROUND

Neurocognitive retardation is one of the most important consequences that SGA children may suffer although conflicting results have been published.

OBJECTIVE

The aim of this study was to study psychomotor development (PD) in children born SGA during the first two years of life in order to identify children at risk as early as possible.

POPULATION AND METHODS

- 108 cases born SGA have been studied between 3 months and 2 years of age.
- Girls: n=59 (54.6%). 76 were born at term (6 twins) and 32 were preterm (< 37 w).
- Catch up growth occurred in 65.3% of term and in 67.9% of preterm children. Mean gestational age was 37.5 weeks. Length was $-2,7 \pm 0,5$ SDS, weight was $-2,45 \pm 0,8$ SDS and head circumference was $-2,1 \pm 1,1$ SDS.
- SGA children suffering perinatal comorbidity with a known negative impact on PD were excluded in order to avoid confounding factors.
- PD was evaluated by the Brunet Lezine test in a cross-sectional and longitudinal study. Results were compared with normal controls and expressed in SDS. Patients and controls have been evaluated by the same psychologist.

RESULTS

- Cross-sectional study. Mean developmental quotient (DQ) was -1.1 ± 1.2 SDS at a mean age of 10.4 ± 7.7 months (mo) of age (n=108). DQ at different time points were as follows in table 1.
- When comparing with controls there were significant differences at 3, 6, 12 and 24 months of age.
- Mean DQ in SGA term children was -1.1 ± 1.2 SDS at a mean age of 9.8 ± 8 mo and in preterm children was -1.3 ± 1.1 SDS at a mean age of 11.8 ± 7 mo without showing significant difference between both groups.
- Longitudinal study. 30 SGA children had been followed longitudinally. Results are showed in table 1.

	3 months	6 months	9 months	12 months	18 months	24 months
SDS DQ cross-sectional(N=108)	-1.4 1.4	-0.9 1.1	-1.1 1.1	-1.1 1.1	-1.0 0.7	-1.0 1.2
SDS DQ longitudinal (N=30)	-1.3 1.2	-0.7 1.1	-0.9 1.2	-0.8 1.2		

Table 1: Cross-sectional and Longitudinal SDS developmental quotient (DQ)

CONCLUSIONS

- A negative impact on psychomotor development in children born SGA has been observed early after birth.
- During infancy psychomotor DQ is around - 1 SDS with 23% of children showing values ≤ 2 SDS at 10 months of age.
- Considering that confounding factors had been eliminated, SGA can be considered a condition that have an early negative impact on neurocognitive development and preventive measures should be taken.

