

Five-year-old children with cerebral palsy born late and moderate preterm in 2001-2005 from a European national surveillance registry



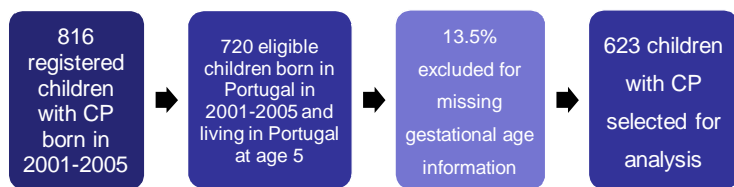
Virella D, Cadete A, Folha T, Andrada MG, Gouveia R, Alvarelhão J, Calado E on behalf of the **National Surveillance of Cerebral Palsy in Portugal among 5-year-old Children,**

Federação das Associações Portuguesas de Paralisia Cerebral (FAPPC) and Surveillance of Cerebral Palsy in Europe (SCPE)

Background. Concern about children born moderate or late preterm (32-34 and 35-36 weeks gestational age) (MLPT) has been growing recently.

Aim. To assess the contribution of children born MLPT for the pool of children with cerebral palsy (CP) and to explore their differential clinical and functional characteristics.

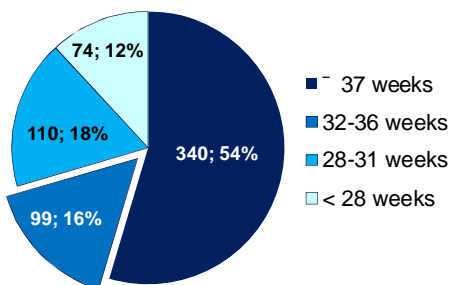
Subjects and methods. Cross-sectional surveillance study with nested case-cohort analysis, based on 5-year-old children living and born in Portugal, from the birth-cohorts 2001-2005, actively reported to the National Surveillance of Cerebral Palsy among 5-year-old Children. The Portuguese Surveillance is affiliated to the Surveillance of Cerebral Palsy in Europe, sharing its definitions, classifications and tools.



Prevalence rates (95%CI) were estimated. Clinical types of CP and functional outcomes were compared between children born moderate or late preterm (MLPT) and those born extreme preterm (EPT <28 weeks), very preterm (VPT <32 weeks) and at term (BaT ~ 37 weeks). Missing values were not subjected to imputation.

Results. Children born MLPT (99) account for 15.9% of cases (95%CI 13.18-18.92; annual min. 11.1; max. 20.0).

Gestational age of 5-y-old children with cerebral palsy born in 2001-2005



Gestational age	Spastic CP	Bilateral spastic CP	Dyskinetic CP	Epilepsy	Cognition IQ < 70	Cognition IQ < 50
Born > 37 weeks	75%	61.2%	17.6%	45.5%	58.2%	47.8%
Born 32-36 weeks	86.9%	65.1%	7.1%	40%	59.1%	41.9%
Born 28-31 weeks	90.0%	82.8%	7.3%	29.1%	50.5%	27.1%
Born < 28 weeks	90.5%	73.1%	4.1%	28.8%	59.1%	36.9%
	p<0.001	p=0.001	p=0.001	p=0.006	ns	p=0.002

Gestational age	GMFCS I-II : IV-V	BFMF I-II : IV-V	Communication (emitter) I-II : IV-V	Feeding I-II : IV-V	Drooling I-II : IV-V
Born > 37 weeks	48.8% : 44.5%	49.2% : 44.6%	47.3% : 45.1%	56.9% : 37.9%	61.5% : 24.9%
Born 32-36 weeks	54.7% : 36.8%	62.4% : 32.3%	65.2% : 28.3%	66.3% : 23.6%	72.2% : 20.0%
Born 28-31 weeks	49.1% : 39.8%	60.0% : 31.4%	72.9% : 21.5%	78.6% : 18.4%	80.8% : 12.5%
Born < 28 weeks	54.4% : 33.8%	63.6% : 27.3%	68.8% : 23.8%	75.0% : 17.9%	83.3% : 10.0%
	ns	p=0.039	p<0.001	p<0.001	p=0.001

The proportion of children with CP classified as GMFCS grade V was:

- BaT 33.4%
- MLPT 16.8%**
- VPT 18.5%
- EPT 19.1%

Key-Points

- ~ Children with CP born moderate or late preterm share clinical features and functional outcomes either with more preterm children or children born at term.
- ~ Whether differences and similarities depend on the nature of the lesion and the moment in gestation or brain development when the insult occurred requires further research.