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Letter to the editor

'Cognitive function in tetraplegic cerebral palsy with severe motor dysfunction'

SIR–We have recently examined this issue, using data from the same large database from California on cerebral palsy (CP) that was the source for earlier publications.[1–3] We defined severe motor dysfunction as tetraplegia with no functional hand use and inability to crawl, creep, scoot, or walk. According to the Client Development Evaluation Report Manual,[4] 'intellectual functioning and adaptive behavior are [typically] measured by standardized tests, the results of which form the basis for the psychologist's clinical diagnosis. Determination of the level of mental retardation*… must be consistent with Chapter 3 and Appendix A of the Classification in Mental Retardation[5]'.We grouped mental retardation level as: (1) moderate, severe, or profound (IQ<50); (2) intermediate (IQ approximately 50 to 70); or (3) no mental retardation (IQ 70 or higher). The latter was assumed if (a) the patients had 'no mental retardation' or an 'unspecified' mental retardation level, and (b) receptive language was at the highest level, namely: 'Understands meaning of story plot and complex conversation.' We focused on young adults, (15–35y), because cognitive assessments have generally stabilized by this age.

There were 532 patients meeting these criteria, of whom 426 (80%) were classified as having spastic CP and 20 (4%) as having dyskinetic CP (this term includes athetosis and dystonia). Among those with spastic CP, 95% had severe mental retardation or worse and 75% were classed as having Profound Mental Retardation (IQ<25). Only 2% had no mental retardation. Among those with dyskinetic CP, however, only eight (40%) had profound mental retardation, and four (20%) had no mental retardation.

A possible limitation of these results is that the reliability of the cognitive assessments is untested. Nevertheless, it seems reasonable to conclude that normal intelligence is rare among young adults with severe spastic CP, but not uncommon among those with dyskinetic CP, even when there is profound motor impairment. These findings are consistent with those of Kyllerman[6] who demonstrated that more than half of his (child) patients with dyskinetic CP had intelligence within the normal or dull-normal range.

These findings emphasize the importance of appreciating that cognitive abilities continue to remain preserved in some young adults with dyskinetic CP who have very severe motor dysfunction.

*UK usage: learning disability.

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