

Neurodevelopment and Intervention of a Newborn Surviving an Event of Accidental Injection of Atracurium

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The occurrence of accidental injection of high doses of atracurium in seven newborns had resulted in one dead and six injured. This case report was aimed to examine the developmental course and the intervention received in one survivor who exhibited persistent abnormalities in neurodevelopment until the first year of age. The case showed weak muscle strength at the neck and the lower extremities and poor postural stability in various motor activities in the early months of age. Because of a slow progress in attaining new motor skills from 6 months onward, the infant exhibited significantly delayed motor development in later ages and hence underwent a series of physical and occupational therapy. Furthermore, she manifested thinning of corpus callosum on the brain magnetic resonance imaging at 9 months of age indicating cerebral hypomyelination. Our results appear to suggest hypoxic insult and neurodevelopmental sequel in this case following accidental injection of a high dose of atracurium. Continued developmental intervention and long-term follow-up of this case is warranted. (FJPT 2005;30(3):132-138)

Key Words: Atracurium, Hypomyelination, Medication errors, Newborn, Neurodevelopment

A medical accident occurred at a local perinatal clinic in Taipei, Taiwan, on November 29, 2002, in which seven newborns were mistakenly injected atracurium (10 mg) as hepatitis B vaccine. Atracurium is a neuromuscular blocking agent commonly used for muscle relaxation in surgery and for sup-

portive management of intensive care patients.^{1,2} The infants showed apnea with bradycardia and cyanosis following atracurium injection and were later transported to nearby hospitals for emergency care. This medical event had resulted in one dead and six requiring intensive care services.

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