The scapula was of PCH was more internally rotated (10° , P < 0.05) at rest and during most movements. Posterior tilt of the scapula was limited at the end of abduction, flexion and during the movement of hand-to head (8° , P = 0.09). There were few significant differences in scapular lateral rotation. Meanwhile, the glenohumeral joint showed compensation as excessive amplitude of external rotation in abduction (10° , P = 0.02) and larger range of motion in flexion and abduction.

Discussion.– These original data encourage exploration of thoraco-scapulohumeral motion in child. The scapulothoracic joint seems more limited than the glenohumeral joint. They are probably correlated with the overall function of the upper and encouraged to monitor the future of these children's shoulder. The pathophysiology of these changes remains unknown: postural abnormalities or secondary bone deformities?

References

[1] Brochard, S, et al. Measuring scapular motion in children without and with hemiplegic cerebral palsy. Proceedings of the Gait and Clinical Movement Analysis Society 2011. Bethesda, MD, USA.

[2] Jaspers E, et al, Gait and posture, 2011;33(2):279-85.

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Pain prevention for children undergoing botulinum toxin injections in France

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Keywords: Botulinum toxin; Pain; Prevention

Objective.– Few studies have considered pain prevention during botulinum toxin injections. There is no consensus on the premedication to use. We wish to list the analgesic procedures used for children undergoing botulinum toxin injections in France.

Material and method.– We carried out a national phone survey, during two month, among 64 medical doctors. Questions dealt with indications for general anaesthetic, pain prevention, procedure assessment, and satisfaction.

Results.– The equimolar mix of oxygen and N_2O is often used; analgesic or anxiolytic premedication is used by some. Non-pharmacological pain management therapies were widely used, but the way of using them varied. Some pain scale were used for pain evaluation.

Discussion.– Despite miscellaneous pain prevention protocols, 64% of people asked were satisfied, less than 20% of session are difficult for 91% of people asked.

Further readings

Brochard S, et al. Determining the technical and clinical factors associated with pain for children undergoing botulinum toxin injections under nitrous oxide and anesthetic cream. Eur J Paediatr Neurol 2011 Jan 25. [Epub ahead of print]. Gambart G. Evaluation of analgesic protocol with nitrous oxide and EMLA cream during botulinum toxin injections in children. Ann Readapt Med Phys 2007 Jun;50(5):275–9.

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Preliminary study on the interest of applying anesthetic cream before intramuscular botulinum toxin injections in children and adolescents with cerebral palsy

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Keywords: Pain; Cerebral palsy; Botulinum toxin

Objective.— To study the interest in using an anesthetic cream to prevent pain during botulinum toxin injections in children and adolescents with cerebral palsy. *Method.*—Pain was evaluated in two populations of children and adolescents with cerebral palsy during botulinum toxin injections. Anesthetic cream was applied to one group at least one hour before the injections at predetermined injection sites. The other group received their injection without anesthetic cream. Pain was evaluated by an EVA score or on a CHEOPS scale according to the capacity of the patient. Reaction to the gestures was evaluated by the practitioner as "strong, average, weak, nil".

Results.– Eighty-six cerebral palsy patients between 2 and 20 years old participated in the study. The clinical forms were variable (GMFCS classification). Reactivity was evaluated for all patients. Forty-six of them were able to evaluate their pain with an EVA score. For the other 40 patients, pain was evaluated on a CHEOPS scale. Forty-seven were given the anesthetic cream and 39 received their injection without cream. The 2 populations were homogeneous concerning average age and clinical form of the cerebral palsy. The reactivity of the patients and the average of the evaluations of pain during injection were not significantly different for the 2 groups. Analyses according to age, the number of muscles and limbs concerned added nothing in favor of the anesthetic cream.

Discussion.— Other factors like the different waiting time before injection influenced the patient's anxiety. In these groups, the results do not indicate an interest in using anesthetic cream to decrease perceived pain during botulinum toxin injections for children and adolescents with cerebral palsy. The number of patients in this study was insufficient to be statistically significant.

Conclusion.– This work does not provide any evidence favoring application of anesthetic cream before injecting botulinum toxin in children and adolescents with cerebral palsy to decrease the inflicted pain.

Further readings

Gambart G, Mette F, Pellot AS, Richard I. Ann Read Med Phys 2007;50(5):275–279.

Fritos S, Tasseel-Ponche S, Artz H, Verhaeghe M, Cuvelier C. Hôpital Trousseau, Paris 2010.

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Inventory of medical and social care of children with cerebral palsy in Brittany: Preliminary results

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The aim of this study was to evaluate the medical and social care of children with cerebral palsy (CP) in Brittany.

Material and methods.– A questionnaire was constructed to identify social care, places of rehabilitation and education, medication, devices, frequency of medical and paramedical care. The questionnaires were distributed to parents of children with CP via a network of Brittany's professionals involved in the care of children with CP during 1 year. Stratified results by age and Gross Motor Function Classification Classification System (GMFCS) were performed.

Results.– Ninety-two out of 450 questionnaires distributed were analyzed. The children were 41.4% of type I, 18.5% II, 14.1 III, IV 13% and 13% V and had a mean age of 8.2 years (2–16 years). Children GMFCS I and II were mostly mainstreamed children while III and IV were either mainstreamed or were in a IEM. Fifty percent of parents of children with GMFCS V did not work while 20% of parents of children with GMFCS I worked. Sixty-three percent of children did not take medication. The first class represented was the antiepileptic drugs (16% of children). Children receiving botulinum toxin injections were mainly classes III and IV. The types of doctors the most represented were the general practitioner (70 to 100% of children in classes according to GMFCS) and the physiatrists (75% to 100%). Paramedics the most involved were physical therapists (95 to 100%), occupational therapists (30 to 75%) and psychomotor therapist (19 to 50%). 86.8% of parents believed that the care answered to the problems that faced them.

Discussion.—One of the difficulties of the study was to obtain the care of children GMFCS IV and V of a greater age.

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