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**CO45-003-e**

**Does hippotherapy improve motor function in children with cerebral palsy? Systematic review**

E. Pantera (Dr) a,b, D. Vernay (Dr) a, V. Gautheron (Prof) a, I. Laffont (Prof) a, M. Gaviria (Dr) b

a CRF de Montrodat, Montrodat, France
b CHU de Clermont-Ferrand, Clermont-Ferrand, France

**Objective** To perform a systematic review of the literature regarding hippotherapy in children with cerebral palsy.

**Method** The research in Medline and Cochrane Library databases was performed using the keywords “Equestrian therapy”, “Hippotherapy”, “Equine-movement therapy”, “Therapeutic horse (back) riding”. The methodological quality of the articles was assessed using four levels of evidence and three guideline grades (A: strong B: moderate C: poor).

**Result** Six prospective randomized controlled studies confirm the level of evidence of hippotherapy and/or instructor-directed recreational horseback riding therapy (HBRT) in children with cerebral palsy with grade B. Hippotherapy and/or HBRT in children with cerebral palsy contributes to improve motor function, symmetry of muscle contraction, spasticity, posture and walking. Ten prospective no randomized studies confirm the level with grade C for balance, motor coordination, lumbo-pelvic flexibility, walking speed, and social behavior.

**Conclusion** The level of evidence of hippotherapy in children with cerebral palsy is moderate (no grade A studies and six grade B studies).

**Keywords** Hippotherapy; Equestrian therapy; Therapeutic horse (back) riding; Cerebral palsy; Literature review evidence based; Rehabilitation

**Disclosure of interest** The authors have not supplied their declaration of conflict of interest.

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**Effects of botulinum toxin injections on function and quality of life in children with cerebral palsy**

S. Ghroubi (Prof) a,b, W. Elleuch (Dr) a, A. Mallek (Dr) a, S. Mahersi (Dr) a, M. Elleuch (Prof) a

a CRF de Montrodat, Montrodat, France
b CHU de Saint-Étienne, Saint-Étienne, France

**Objective** To show the effects of botulinum toxin injections (BT) on function and quality of life in children with cerebral palsy (CP).

**Patients and methods** A prospective study including 60 children, aged from 2 to 18 years old, who received repeated injections of BT was conducted. Evaluations were done before and after injections including spasticity using the modified Ashworth scale (MAS), functional evaluation using the Gross Motor Function Classification System (GMFCS) and the Manual Ability Classification System (MACS), a videographic record, an evaluation of satisfaction (Visual Analogical Scale) and an evaluation of the quality of life using the Child Health Questionnaire Parent form 50 Questionnaire (CHQ-PF50).

**Results** The average of the MAS was 2.5 for all injected muscles. Sixty-five percent of children were classed level I, II or III of MACS. All our patients had BT injections. The sural triceps was the most injected muscle. The improvement of spasticity after BT injections in the lower limb was more important for 6-year-old children (improvement of 46%, P < 0.0001). We noted a significant increase of the number of walking patients (P < 0.001) and a beneficial effect on the pattern gait especially for children level III of GMFCS. The percentage of children improved (in GMFCS and MACS) and the average of visual analogical satisfaction scale as well, increased from one injection to another reaching a constant level in the last 2 injections (P < 0.001). We have noted an improvement in the score of CHQ-PF50 (physical and psychosocial score), which was correlated with the functional improvement.

**Discussion** Our study shows how BT injections can induce a functional gain in children with CP. An improvement of upper extremity’s function, gait pattern and the quality of life upturn were plainly noticed after these injections. Similar benefits of BT [1,2] were mentioned in literature.

**Keywords** Cerebral palsy; Botulinium toxin; Gross Motor Function Classification System; Manual Ability Classification System; Child Health Questionnaire parent form 50; Function; Quality of life

**Disclosure of interest** The authors have not supplied their declaration of conflict of interest.

**References**

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**CO45-005-e**

**Quality of life of adults with cerebral palsy living in britany**

P. Gallien (Dr) a,b, B. Nicolas (Dr) b, A. Durufle (Dr) b, A. Colin b, S. Achille b, B. Fraudet c

a Pôle St-Hélire, Rennes, France
b Réseau BreizhPC, Rennes, France
c Pôle Saint-Hélire, Rennes, France

**Corresponding author.**

E-mail address: pc.gallien@wanadoo.fr (P. Gallien)

**Introduction** Just a few studies have been published about health related quality of life of adults with cerebral palsy and no at our knowledge in the French population. The objective of this study is to obtain an image of health related quality of life of BreizhPC network users.

**Methods** A questionnaire was sent to all network users. This questionnaire concerned the people living: work, leisure, clinical complaints, as well as a self SF36 quality of life questionnaire. The SF-36 quality of life give information in different fields: physical activity, emotional life, vitality, general health. The questionnaires were analyzed according to the disability, the influence of social status, level of disability and major clinical disorders. The statistical analysis used the Student test.

**Results** Eight-hundred questionnaires were sent out, 173 users responded, 81 women and 92 men, with a mean age of 42. That