– visual analog scale satisfaction in post-therapeutic.

Results.– Among the 52 patients treated 64% were male, 37% are children aged 5 to 15 years. Hemiplegia and cerebral palsy represent 73% of diseases treated. The equine foot was treated in 54% of cases where a percentage of 64% of muscle toxins represented by the triceps surae (42% of gastrocnemius, soleus 21%). Before treatment, the mean VAS pain was 6.85, the average Ashworth was 3.1, the mean range of motion (dorsiflexion of the ankle) was 7. After treatment, the mean VAS pain increased to 4.02 that of Ashworth 2, and the mean joint amplitudes increased to 1.5.

Discussion.– The results obtained after injection of botulinum toxin in these 52 patients were satisfactory standard analgesic, hypertonic and joint mobility, by a regression of pain intensity estimated at three points on average, a regression point of the spasticity and a gain of passive joint movement of 8.5 on average. These results have led to an improvement in the lives of patients at the functional level with an average of 53.63% EVA satisfaction.

Conclusion.– Focal spasticity is causing functional impairment of a major source of pain and muscle-tendon and articular use of botulinum toxin has dramatically improved the lives of these 52 patients, hence the interest to generalize this method therapeutic.

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Generalized fatigue after Botulinum neurotoxin A (BoNT-A): Research of systemic diffusion with single fiber EMG

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Keywords: Botulinum toxin; Botulism-like syndrome; General weakness; Single fiber EMG

Aim.– To establish if patients reporting unusual fatigue present generalized diffusion of BoNTA. Fatigue after BoNTA injection is frequently reported in literature (up to 18% of injected patients).

Material and methods.– Retrospective, monocentric study. Generalized diffusion has been searched with a single fiber EMG (or Neuromuscular Jitter) on striated muscles away from BoNTA injected muscles. Neuromuscular jitter (NMJ) is compared between 16 patients with unusual fatigue after BoNTA injection, 17 asymptomatic patients treated with BoNTA (control group), 19 patients suffering botulism-like syndrome having muscular deficit distant from BoNTA injection site and three patients suffering botulism food poisoning. Indications were treatment of neurogenic detrusor overactivity or spasticity. NMJ is the gold standard for evaluating neuromuscular junction dysfunction. Mean jitter, percentage of pathological fibers and number of conduction blocks are compared between groups.

Results.– Mean jitter, percentage of pathologic fibers and conduction blocks for asymptomatic patients differs from those of patients presenting distant muscular deficit (P = 0.0001) and patients suffering botulism (P = 0.017). Mean jitter and number of conduction blocks differs between patients presenting unusual fatigue and patients presenting distant muscular deficit (P = 0.0005). No significant difference appears between asymptomatics and patients relating unusual fatigue after BoNTA treatment.

Discussion.– This study doesn’t give rise to generalized BoNTA diffusion in patients reporting unusual fatigue after BoNTA treatment although jitter clearly differs between patients presenting distant muscle weakness and control group. Generalized neuromuscular disorder doesn’t seem to explain those fatigue events. Several hypotheses can account for it: not enough patients in the group reporting unusual fatigue, fatigue could be due to autonomic nervous system disorder that is not explored with this single fiber EMG, immune mechanism. Fatigue could be reported to initial disease.

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Biomechanical, clinical and gait analysis’ effects of BoNTA injection in the rectus femoris muscle of incomplete SCI patients

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Keywords: Botulinum toxin; Rectus femoris; Spasticity; Stretch reflex; Stiff-knee gait; Torque

Background.– An understanding of the mechanical effects of botulinum toxin types A (BoNTA) on spastic and voluntary muscle contraction may help predict functional responders.

Objective.– To compare the effect of BoNTA on voluntary and stretch reflex-related torque (and angle at peak torque) produced by activation of the rectus femoris (RF) muscle.

Methods.– A prospective open pilot study. n = 15 incomplete SCI patients, impaired by a specific RF spasticity (n = 20), with RF hyperactivity in mid-swing and a stiff-knee-gait quantified by formal Gait Analysis (GA), were assessed before and after BoNTA injection (Botox, 20 U). Main outcome