Validation of a guideline to treat the neurologic claw toe including the practice of nerve blocks: A national survey

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Introduction.– The claw toe is a common and disabling in patients with hemiplegia. Unfortunately in France, there are no recommendations or consensus on its treatment. The objective of this work is to offer therapists a grid to facilitate consensus decision-making in the management of neurologic claw toes.

Method.– Initially, we constructed a guideline on the treatment of neurologic claw toes by synthesizing the literature data and service experience of PMR of Toulouse. Then, we evaluate this guideline by national medical experts in this field, to propose a consensus decision-making grid. The evaluation concerned, first, the overall quality of the guideline especially the realisation of a nerve block to xylacaine prior to completion of an injection of botulinum toxin. Then, through participation of the intrinsic muscles in the claw, as evidenced by a positive block of the posterior tibial nerve at the ankle, selection of the muscle to inject was performed: flexor digitorum brevis or quadratus plantae. Finally, the prescription of treatment by orthopedic insoles retrocapital support was discussed.

Results.– This survey has generated a real interest from experts contacted with a response rate of 100% in a very short time. Overall, this grid is shared by most experts, from which evaluates its usefulness to 6/10. They offer mainly treatment retrocapital soles with support and often do not perform nerve block before inject toxin. Moreover, in case of participation of the intrinsic muscles in the claw, they are more accustomed to inject muscle flexor digitorum brevis.

Discussion.– The completion of this investigation has raised the problem of blocks considered by ASFAR as acts of anesthesia, while many PMR do in their service. Finally, from a methodological standpoint, it would be interesting to repeat this process to facilitate the management of the main weaknesses of hemiplegics patients as stiff-knee or equinovarus.

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Efficacy of the selective neurotomy in the treatment of the spastic equinovarus foot among adult stroke patients following the ICF model. A randomized, single-blind, controlled trial

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Purpose.– To demonstrate the efficacy of the selective neurotomy in treating spastic equinovarus foot (SEF) in adult stroke patients.

Material and methods.– Sixteen chronic stroke patients were recruited and randomised in two groups: eight patients underwent a tibial neurotomy, the eight others received botulinum toxin injections in the calf muscles. Body structures and functions (MAS, Tardieu scale, L-path, MRC scale, passive ROM, instrumented gait analysis), activities (ABILOCO), participation (SATIS-Stroke) and quality of life (SF-36) were evaluated in both groups by a blind assessor before, 2 months and 6 months after treatment.

Results.– In comparison with botulinum toxin injections, tibial nerve neurotomy induced a higher reduction in spasticity and a more significant decrease in total viscoelastic stiffness of the ankle. Both treatments induced a comparable improvement of ankle kinematics during gait, while none of them induced a significant muscle weakening. Activities, participation and quality of life were not significantly modified in both groups.

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

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Objective.– To study the interest of the use of an anesthetic cream in prevention of the pain during the injections of botulinum toxin at the child and the teenager.

Method.– The evaluation is realized in two populations of cerebral palsy children and teenagers. A population receives the application of anesthetic cream before the injections. Other population is injected without anesthetic cream. The pain is estimated by a score EVA or a scale of CHEOPS according to the capacities of the patient. The "reactivity" is appreciated in "important, average, low, no".

In 2011, we presented a preliminary study but series, too small did not allow a statistical study.

Results.– We have 193 medical records. The clinical forms were variable (classification GMFCS). Ninety-seven were evaluated their pain on an EVA, 96 other, are estimated by the CHEOPS. Ninety-six had received anesthetic cream, 97 were injected without. Two populations were homogeneous. The average of EVA is 2.9 with the cream 2 without. The average of CHEOPS is 7 with the cream, 7,2 without. We also analyze the results according to the age, to the number of muscles, concerned limbs or an adjudicating treatment.

Discussion.– Other factors such as the waiting time before injection is probably involved in the patient’s anxiety.

The passage of the skin seems to us also less painful since we use the electric positioning, as well as an improvement of WHIM of 21 points were noted one week after treatment. No complication was reported.

In 2011, we presented a preliminary study but series, too small did not allow a statistical study.

References