Discussion.– SEF is a major cause of disability for stroke patients, impairing their daily living activities, social participation and quality of life. When this deformity is primarily due to muscle overactivity, various focal treatments including selective neurotomy can be proposed together with the rehabilitation program. This neurosurgical procedure consists of a partial and selective section of the motor nerve branches that innervate spastic muscles. For a low cost, it can permanently reduce muscle overactivity. However, its effectiveness had only been suggested through uncontrolled case series studies [1], mainly focussing on body structures and functions. The present study demonstrates with a high level of scientific evidence that tibial nerve neurotomy is an efficient treatment of SEF, reducing impairments of chronic stroke patients. Future studies should still be conducted in order to confirm the long-term efficacy of this treatment following the International Classification of Functioning, Disability and Health (ICF).

Reference

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Intrathecal baclofen treatment in early stage of severe brain damaged subjects: Case-report and literature review

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Keywords: Intrathecal baclofen; Brain damaged subjects; Early stage; Muscular hypertoniosis; Awakening

Introduction.– Intrathecal baclofen is known as an effective treatment of muscular hypertoniosis in chronic stages of vascular or traumatic brain damaged subjects [1]. Its interest in early management is supported by its effects on neurovegetative crisis [2].

Materials and methods.– A 61-year-old female patient in persistent vegetative-nervous state two months after a bilateral anterior cerebral artery stroke, presented with spastic tetraplegia and equine retracted feet despite an optimal antispastic treatment (oral treatment and botulinum toxin injections). Considering a global muscle hypertoniosis with a mean score (MAS) of 3.8 on inferior limbs and 3 on superior limbs, and after positive intrathecal baclofen test, pump implantation was decided on day 90 after stroke.

Results.– An improvement of hypertonnia of 2 points (MAS) on inferior limbs and of 1.4 on superior limbs facilitating the patient’s nursing and bed positioning, as well as an improvement of WHIM of 21 points were noted one week after treatment. No complication was reported.

Discussion.– A diffuse muscle hypertoniosis with secondary neuro-orthopedic complications can appear in early stages after a severe brain damage. Our case emphasizes the importance of screening and early management of those muscle tonus troubles, with particular interest in early intrathecal baclofen treatment.

References

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Adverse events of chronic intrathecal baclofen infusion: A descriptive one-year follow-up of 158 consecutive patients followed during one year

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Keywords: Intrathecal baclofen pump; Complication; Adverse event; Spasticity

Objective.– To describe the adverse events (AE) occurring after intrathecal baclofen (ITB) pump placement.

Patients and methods.– We prospectively collected all the AE occurring in patients receiving ITB via a pump, from the rehabilitation setting of R.-Poincaré Hospital during 2010.

Results.– 158 patients were enrolled, mean age 46 years and 65% male. 128 patients were former implanted (P1) and 30 had a pump placement during 2010: 20 new-implanted (NI) and 10 replacements (R). Most of patients were SCI patients (44 paraplegic and 23 tetraplegic) and MS patients (45). 18% of the patients had one or more complications (38 complications). For a total follow-up of 1665 months, there were 0.023 complications per pump-month.

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Complications were due to baclofen side effects in 16%, equipment dysfunction in 29% and postoperative complications in 55%. 63% of NI or R patients had adverse events vs 7% of FI patients.

Discussion.– The incidence of AE in our study was 0.27 complications per pump-year. This was more that Bensmail et al. [1] observed. They described 0.11 complications per pump-year in 44 MS patients in a 12-years follow-up, but only equipment dysfunctions were collected. Tassée-Ponche et al. [2] reported 72% of AE in a population of 25 cerebral palsy in a 10-years follow-up, with 0.07 serious complications per pump-year (required an hospitalization), vs. 0.014 in our study.

Conclusion.– This prospective study collected AE occurring after ITB pump placement in a large population. Procedures should be created to reduce the incidence of these AE.

References

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