FOCAL SPASTICITY IN MS: BT-A TREATMENT

FOCAL SPASTICITY IN MULTIPLE SCLEROSIS: EXPERIENCE ON BOTULINUM TOXIN TYPE A TREATMENT AT SAN RAFFAELE HOSPITAL

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INTRODUCTION: botulinum toxin type A is an authorized treatment for focal spasticity. Literature data show a positive effect in reducing lower and upper limb spasticity. Few data are available on the real impact of BT-A in improving active function and in reducing care burden. Not enough data are available on long term effect.

OBJECTIVE: to review clinical and treatment data of MS patients with spasticity treated with BT-A toxin in movement disorders room of San Raffaele hospital.

RESULTS: during ten years of activity 333 patients have been evaluated and treated for spasticity. 141 pts were affected by Multiple sclerosis. Lower limb was the mostly treated arm, and in particular the hip adduction and the plantar flexion were the pattern more frequently treated with a dose range of 300-500 UI of onabotulinum toxin or incobotulinum toxin and 650-1500 UI of abobotulinum toxin. Visits were scheduled every 4-6 months. No clinical evaluation had been routinely performed at the clinical peak effect (4-6 weeks after treatment). The treatment was repeated every 5.5 months (mean value). At the end of 2015 we updated the data set recording of our lab, by inserting routinely evaluation and registration of proper clinical scales. Scales were targeted to quantify spasticity grade for involved segments (modified Ashworth scale-mAS), to evaluate the impact on disability (Disability Assessment Scale DAS) and to evaluate motor function (10-meter walking test 10-WT). During 2016 our center treated 19 MS inpatient with lower limb spasticity. Half of them were able to walk, 2 patients were bedridden and the 7 left were unable to take more than a few steps. Mean mAS of the treated pattern was 2 for plantar flexion and 2.5 for adductor muscles. Mean DAS for lower limb was 7.8 (range 0-15).

DISCUSSION: it is necessary for clinical and research purpose that the evaluation of limb spasticity will be based on the quantification of spasticity grade for involved segments (mAS), on evaluation of impact on disability (DAS) and, when possible, on motor function (10 WT, 6 WT, TUG). Our retrospective study lead us to redefine a more systematic approach to clinical evaluation of spasticity, on the basis of the limb and the specific pattern involved. Moreover, we decided to set routinely a control visit at 4-6 weeks after treatment. We are starting a close collaboration with the physiotherapy team to optimize and define treatment scheme with BT-A combined with a precise physiotherapy program, tailored on a specific spasticity pattern.