Efficacy and safety of treatment with the use of intraurethral alprostadil (Vitaros©) on demand in men with Spinal Cord Injury and Multiple Sclerosis

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Introduction
Erectile dysfunction (ED) is one of the greatest concern of patients suffering from SCI and MS, 80% and 70% respectively, deteriorating their quality of life. Although PDE5Is consist the first line of ED treatment in these patients, the intraurethral use of alprostadil seems a challenging alternative treatment. The aim of the study is the evaluation of the efficacy and safety of treatment with the use of intraurethral alprostadil (Vitaros©) on-demand in men with neurogenic ED due to Spinal Cord Injury or Multiple Sclerosis.

Methods
We prospectively collected data of 42 men suffering from spinal cord injury and 34 suffering from Multiple Sclerosis (MS) who used Vitaros© for ED. The study was in line with the Helsinki Declaration and respected the dictates of good clinical practice. An informed written consent was acquired from each patient. The treatment protocol required a minimum administration of topical alprostadil for at least twice a week, even without a subsequent sexual intercourse for a period of three months. Alprostadil was purchased by the patients. Inclusion criteria included absence of ED prior the accident or the onset of the disease (IIEF-5 score >21, Erection Hardness Score-EHS ≥3, affirmatively answers to Sexual Encounter Profile Questions 2 and 3 -SEP2 & SEP3) and absence of moderate/severe cardiovascular disease, diabetes mellitus and metabolic syndrome. All men with SCI were performing intermittent catheterizations and 60% of MS group (20 patients) respectively. Average age was 41.5 and 39.5 years old respectively, while mean IIEF score prior the therapy was 14 and 16 and EHS score 1.6 and 1.8.

Results
After 3 months usage, 5 patients dropped out from the group of SCI due to hypotension or urethral pain and 2 from MS group due to urethral pain. Vitaros© implied an improvement of 4.5 points for the IIEF-5 score and 0.9 for the EHS score while the improvement for the MS group was 4 points and 1.3 points respectively. We have to notice that the subgroup of MS patients who did not perform ICs benefited the most in comparison with the other patients and none of them discontinued the treatment for the whole duration of the study. At the end of the study, 15 patients form the SCI group and 18 from the MS group selected Vitaros© to be added in their treatment agents of choice, as an alternative.

Conclusions
It seems that the use of Vitaros© is an alternative treatment for neurogenic patients suffering from SCI and MS, less effective though in ICs users, and the most apparent reason of failure might be the alteration of the epithelium of the urethra to squamous due to repetitive injuries as catheters pass through, making the agent less absorbable through it.

References