

SYSTEMIC SIDE EFFECTS MIMICKING A CLINICAL RELAPSE IN MULTIPLE SCLEROSIS PATIENTS TREATED WITH BOTULINUM A TOXIN FOR BLADDER DYSFUNCTION

Hypothesis / aims of study

Botulinum A toxin (BTX-A) has become an important therapeutic option for bladder overactivity unresponsive to conservative therapies also in Multiple Sclerosis (MS) patients (1). Systemic side effects after BTX-A injections are rare and their appearance seem to be related to high doses and elevate volumes of dilution used or high frequency of injections or, in accordance with some Authors, injections of the proximal upper extremity muscles (2, 3).

Study design, materials and methods

We describe 2 cases of female patients with MS who developed systemic side effects after bladder injections of BTX-A performed for overactive bladder unresponsive or intolerant to antimuscarinics.

Results

Case 1: In May 2005 a 34 years old female with Relapsing-Remitting MS and an Expanded Disability Status Scale (EDSS) score 5.5, received her first bladder injections of Abobotulinum 500 UI performed with the standard technique and dilution. She reported a mild improvement of her bladder symptoms; therefore 1 year later she was re-injected with the double dosage of Abobotulinum (1000 UI). Ten days later she complained of generalized weakness, dysphagia and dysphonia, that were referred to a clinical MS relapse and treated with intravenous steroids. These symptoms decreased and disappeared gradually in 2 months, and in the subsequent re-injections Onabotulinum 300 UI was always used without side effects until she underwent bladder augmentation.

Case 2: In December 2009 a 41 years-old woman, affected by Secondary Progressive MS with relapses and an EDSS score 6.5, complained of a moderate/severe systemic weakness, diplopia and dysphagia ten days after the bladder injections of Abobotulinum 1000 UI. The neurological symptoms were referred to a clinical relapse of MS and the patient was submitted to intravenous steroid therapy without the usual quick benefit. Such clinical picture lasted two months. Fourteen months later the injections with Abobotulinum 1000 UI were repeated and the patient showed again the same side effects (worsening of weakness in upper and lower limbs - with increased gait instability/falling, difficulty in arising from the chair - dysphagia, dysphonia, diplopia) that solved in 3 months spontaneously. On this occasion it became clear that the systemic symptoms depended on the spread of BTX-A and therefore the patient was no longer be re-injected.

Interpretation of results

In MS patients the systemic adverse events after BTX-A injections can mimic a clinical relapse of the disease. In our long and large experience with BTX-A injected into the bladder, we observed systemic side effects only in these 2 cases. In both the patients there was a low body index and a progressive neurological disease (MS). Moreover high dosage of Abobotulinum - which probably spreads more than Onabotulinum - was always used.

Concluding message

Systemic adverse events after BTX-A bladder injections can mimic a clinical relapse of MS and a good collaboration between urologist and neurologist is mandatory. Our experience suggests avoiding high dosage of Abobotulinum in slim MS patients.

References

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Disclosures

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