

### Botulinum toxin as an alternative for the treatment of aesthetic deformities

To the Editor

We have read the case report of Al-Ahmad and Al-Qudah<sup>1</sup> regarding the use of botulinum toxin type A in the treatment of masseter hypertrophy, and we agree with the authors when they reported that botulinum toxin type A is an option for patients who declined surgical treatment. However, we would like to make some considerations concerning this type of treatment that can contribute to the authors' findings.

Botulinum toxin causes temporary local paralysis of the injected muscle by inhibiting acetylcholine release at the neuromuscular junction, and its use is well established for a great variety of pathologies.<sup>2</sup> In the last few years, patients are well informed of minimally invasive or non-surgical procedures, and they often ask their doctors about these treatments as a substitute for a primary surgical treatment. Botulinum toxin is effective for the treatment of axillary<sup>2</sup> and palmar hyperhidrosis,<sup>3</sup> facial rhytides,<sup>4</sup> blepharospasm, hemifacial spasm,<sup>5</sup> and other conditions with acceptable results as shown by the aforementioned authors.<sup>1</sup> Botulinum toxin is also a good alternative to treat some patients who have chronic uncontrolled diseases, and present absolute or relative contraindications for surgical treatment. There are at least 3 commercial types of botulinum toxin type A available in many countries. In Brazil, there is Botox<sup>®</sup> (Allergan, Brazil), Dysport<sup>®</sup> (Ipsen Ltd., Biosintética, Brazil), and Prosigne<sup>®</sup> (Derma Dream, Brazil). The presentation of the last one is similar to Botox,<sup>®</sup> and also presents low cost. However, it is important to consider that many patients can develop resistance to type A toxin, mainly after its repeated use. In these cases, the botulinum toxin type B should be considered. This type of botulinum toxin has the same safety profile when compared with botulinum toxin type A. It has a faster onset but a shorter durability.<sup>6</sup> According to Sadick and Matarasso<sup>4</sup> the short durability of action seems to be dose-related. Botulinum toxin type B is currently available for commercial use as Neurobloc<sup>®</sup> or Myoblock<sup>®</sup> (Solstice Neurosciences Incorporation, United States of America) and it is necessary to use approximately 50U of type B toxin to obtain the same result of 1U of type A toxin.<sup>6</sup>

In conclusion, despite good results with the use of Botox<sup>®</sup> or Dysport<sup>®</sup> as botulinum toxin type A in the

treatment of many pathologies, another presentation such as Prosigne<sup>®</sup> may be used. Likewise, the use of botulinum toxin type B (Myobloc<sup>®</sup>) should be considered as an alternative in cases of type A toxin resistance.

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#### Reply from the Author

The use of botulinum toxin type A is becoming more extensive in the treatment of many clinical conditions, despite its known limitations, such as developing resistance to the toxin and the relapse of treatment. We believe that the use of other preparations, such as the botulinum toxin type B referred, to by our colleagues from Federal University of Sao Paulo in their letter, has to be encouraged. However, this also has to be well investigated to examine possible resistance to the toxin, and likewise, to examine the clinical impact of the short durability of this toxin and other features by using this toxin to treat specific medical conditions, and observe the outcome of the treatment.

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