Botulinum Toxin Injection Technique for Axillary Hyperhidrosis

Técnica de infiltración de toxina botulinica en hiperhidrosis axilar

J. del Boz, L. Padilla-España, J.M. Segura-Palacios

Servicio de Dermatología, Hospital Costa del Sol, Marbella, Málaga, Spain

Introduction

An approved indication for botulinum toxin (BT) is for the treatment of severe and persistent primary hyperhidrosis of the axilla that interferes with the activities of daily living and that is resistant to topical treatment. This is currently the only approved indication for botulinum toxin type A (BTA), marketed as Botox and presented in the form of vials containing 100 units.1,2

Prior to indicating this procedure, the medical history must be taken, a physical examination performed, and specific additional tests done as required to exclude possible causes of secondary hyperhidrosis and avoid the symptomatic treatment of hyperhidrosis without the diagnosis and/or treatment of an underlying disease.2,3

Clinical improvement usually develops within a week after the injection.2-4 The injection of BT can be repeated when the clinical effect of the previous injection declines and the specialist considers it necessary; however, it is not advisable to repeat injections at intervals of less than 16 weeks.1

Description of the Technique

Prior to injection, the area of axillary hyperhidrosis to be treated can be identified using the starch-iodine technique (the Minor test). The quadrants to be treated are defined and antiseptic is applied. The quadrants can be marked on a transparent dressing rather than on the skin in order to avoid the risk that the marks become blurred by the sweat.5 The discomfort associated with the procedure can be minimized by the subcutaneous injection of local anesthetic, or topical anesthesia can be applied prior to starting the procedure.

The vial of 100 units of BTA is reconstituted by dissolution in 0.9% saline solution (Fig. 1); though the volume of solution for reconstitution of the vial can be varied, it is usually done

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* Corresponding author.

E-mail address: javierdelboz@yahoo.es (J. del Boz).

Figure 1 Material required.
Complications

Complications of this technique are uncommon (11% according to the summary of product characteristics) and the large majority are minor and transitory. As with any injection, the technique can give rise to infection, pain, inflammation, paresthesia, hypoesthesia, swelling, edema, erythema, and localized hemorrhage or hematomas (often related more to the previous injection of local anesthetic).

The pain associated with insertion of the needles and/or anxiety can give rise to vasovagal reactions. In very rare cases (0.7%), transitory muscle weakness can develop in the upper limb. In addition, about 4.5% of patients develop excess sweating in untreated areas (including areas without previous hyperhidrosis), and this can persist for up to a month.

Severe or immediate hypersensitivity reactions, including anaphylaxis, serum sickness, urticaria, soft tissue edema, and dyspnea have been reported rarely.

Conclusions

The injection of botulinum toxin for the treatment of axillary hyperhidrosis is a simple procedure that is relatively quick to perform and has a low risk of complications. The technique produces a high level of satisfaction in a large majority of patients.

The main limitations to the technique are the transitory nature of its effect and the cost of the vial of botulinum toxin.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.adengl.2014.04.011.

References