

COMMENTS AND OPINIONS

High-Dose Botulinum Toxin Type A for Axillary Hyperhidrosis

We read with interest the article by Karamfilov et al¹ investigating high-dose botulinum toxin type A treatment in 24 patients with axillary hyperhidrosis. The authors emphasize that high-dose botulinum toxin type A treatment seems to be as safe as low-dose treatment and has a lower relapse rate. The mean \pm SD observation time was 10 ± 2.8 months.

The physicians' information for Botox (Allergan Inc, Irvine, Calif [distributed by Allergan AG, Lachen, Switzerland]) recommends in general that dosages should not exceed 6 mU/kg every 2 months. Even in adult spasticity when large muscles have to be treated, no more than 400 mU should be used at 3-month intervals. Furthermore, several dose-dependent subclinical adverse effects on distant muscles and cardiovascular and gastrointestinal pathways have occurred following botulinum toxin type A treatment.²⁻⁴ In a few cases, systemic clinical adverse effects following higher doses of botulinum toxin type A have occurred.³

The duration of anhidrosis has been assessed differently in various published articles and has been either identified by the Minor iodine-starch test or reported by the patients. Patients usually observe a fairly anhidrotic plateau phase that is followed by a slow recurrence of hyperhidrosis lasting for 8 to 12 weeks. Karamfilov et al,¹ in their comparison with low-dose botulinum toxin type A treatment, considered data from axillary and palmar hyperhidrosis studies and calculated a mean duration of 5.2 months. The therapeutic window for botulinum toxin type A in palmar hyperhidrosis is fairly small owing to concomitant muscle weakness. Treatment responses are not as good as in axillary hyperhidrosis, and the effect's duration is usually shorter. After two years' experience, Naver et al⁶ reported a median duration of 10 months following the injection of a mean total dose of 60 mU of botulinum toxin type A (Botox) in 68 patients with axillary hyperhidrosis. Our not yet published long-term data (1996-2000) from 42 patients with axillary hyperhidrosis receiving 400 mU of botulinum toxin type A (Dysport; Ipsen Pharma, Rheinbeck, Germany) showed that the median time interval between the set of injections was 34 weeks.

No information is available about the rate of secondary nonresponders in hyperhidrosis. In accordance with data from patients receiving botulinum toxin type A treatment for cervical dystonia for many years, we expect 5% to 10% of patients to develop antibodies. Scientists with long-term experience in treating patients with dystonia rec-

ommend the dosage that produces the greatest efficacy while minimizing the risk of antibody formation.

In focal dystonic syndromes in which botulinum toxin type A plays a major role, some symptomatic relief can be achieved over a period of 3 to 5 months. A large percentage of patients usually derive some benefit from botulinum toxin type A but are far from being completely satisfied owing to persistent involuntary movements in noninjected muscles. In contrast, low doses of botulinum toxin type A stop axillary hyperhidrosis in 100% of the patients for at least 4 months. When we use higher doses of botulinum toxin type A, we accept the risks associated with higher cumulative doses, the risk of higher rates of systemic subclinical adverse effects, and the development of neutralizing antibodies against botulinum toxin type A without achievement of significantly higher efficacy.

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Acres of Skin: The Underlying Problem

The correspondence letter in the February 2000 issue of the *Archives of Dermatology*¹ titled "Ethical Accusations: The Loss of Common Sense" made a lot of sense, and points out that my previous correspondence² did not properly express what I had intended. I wanted to help us focus on an underlying problem in our society using the issues raised in the book *Acres of Skin*.³ The underlying problem is that many people in our country feel that one segment of our population is expendable, so they feel it is reasonable to spend more