MATTERS ARISING

Localised autonomic failure due to botulinum toxin injection

I read with great interest Mann’s report of a patient receiving botulinum toxin injections for spasmodic torticollis who developed sialoœdasis and swelling of the parotid glands after each set of injections. 1 Local diffusion of the toxin and paralysis of the smooth muscles of the parotid ducts was proposed as a possible underlying mechanism. 1

The inhibitory action of botulinum toxin is not confined to the neuromuscular junction. All the autonomic cholinergic fibres including the major secretomotor fibres to salivary glands are similarly blocked. Local diffusion and “chemodenervation” of the parotid glands leads to reduction of salivary flow and the development of chronic recurrent parotitis. A similar explanation for this patient’s symptoms. Dickson and Shevky in 1923 showed that tympanic nerve-induced salivary flow was recurrent parotitis seems to be a more likely explanation for this patient’s symptoms.

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Drugs and botulinum

Mann replies

I am grateful to Dr Bushara for his interest and comments. Too often had considered other potential mechanisms for the salivary gland swelling but favoured duct paralys for a number of reasons.

The patient: clearly still secreted saliva as saliva did not emerge from the glands “manually” with massage. Chronic infection was rejected on the basis of negative growth from swabs and absent response to broad spectrum antibiotics.

The concept of paradoxical hypersecretion is intriguing but one would not expect a dry mouth to result. Duct paralys best explains the combination of symptoms and signs in this patient.

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Immunoglobulin treatment in human and experimental epilepsy

The paper of van Engelen et al 1 mentions some positive effects of intravenous immunoglobulin (IV Ig) in the treatment of refractory epilepsy. No reference about our experience in that field is mentioned, however, in the medical literature reviewed by Van Engelen et al.

In 1983, we successfully treated with IV Ig a patient with severe Lennox-Gastaut syndrome who still remains seizure free. 2 Thereafter, in a first open study, 20 patients with Lennox-Gastaut syndrome and partial epilepsy were infused with IV Ig. 3 This treatment gave excellent results in two patients, who were seizure free for months but relapsed afterwards although their seizures were less severe than before the infusions. In this open study, 15 patients have partially improved including eight with a pronounced decrease of seizures. It was concluded that IV Ig treatment may be very helpful in not only in West and Lennox-Gastaut syndromes, but also in partial epilepsy, including Rasmussen’s syndrome. 4 At that time, however, all studies published about IV Ig in refractory epilepsy were open designs—with the exception of that of Illm et al 5 which was a single blind, cross over trial—with concerning schedules and doses. Indeed the patients received from two to more than 10 infusions with doses ranging from 100 mg to 1 g/kg/perfusion and no relation was assessed between dose or schedule of IV Ig and clinical responsiveness. An overview of the medical literature involving about 200 epileptic patients treated with IV Ig showed a positive response to this treatment in around 50% of the patients. 6 Taking that into account, in 1989 we initiated the first double blind, cross over trial—with controversial schedules and doses. Immunoglobulin treatment in intractable epilepsy. Results of the first double-blind, placebo controlled clinical study. Int J Clin Lab Res 1994;24:152-6.

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1 Mann AC. Localised autonomic failure due to botulinum toxin injection. J Neurol Neurosurg Psychiatry 1994;57:1320.

Van Engelen et al reply:

We thank van Rijckevorsel and Delire for their interest in our paper on immunoglobulin treatment in human and experimental epilepsy. 7 Their point was that we did not mention their experience in that field. Our paper was an overview on some aspects of immunoglobulin effects in human and experimental epilepsies; it was not a review of the medical literature on immunoglobulin treatment in human epilepsies. We wrote a 1993 review on current immunoglobulin treatment in experimental epilepsies; we recognised their contribution in the field by citing three papers published by van Rijckevorsel and colleagues.

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