Localised autonomic failure due to botulinum toxin injection

The concept of paradoxical hypersecretion is intriguing but one would not expect a dry mouth to result. Duct paralysis best explains the combination of symptoms and signs in this patient. A C MANN Department of Neurology and Clinical Neurophysiology, Southern General Hospital, 1345 Govan Road, Glasgow G31 4TF, UK

Immunoglobulin treatment in human and experimental epilepsy

The paper of van Engelen et al mentions some positive effects of intravenous immunoglobulin (IVIg) in the treatment of refractory epilepsy. No reference about our experience in this 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. Thereafter, in a first open study, 20 patients with Lennox-Gastaut syndrome and partial epilepsy were infused with IVIg. 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 not only in West and Lennox-Gastaut syndromes, but also in partial epilepsy, including Rasmussen's syndrome.

At this time, however, all studies published about IV Ig in refractory epilepsy were open designs—with the exception of that of Ilium et al, which was a single blind, cross-over trial—with constant IVIg schedules and doses. Indeed the patients received from two to more than 10 infusions with doses ranging from 100 mg to 1 g/kg per infusion 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. Taking that into account, in 1989 we initiated the first double blind study to establish a dose of IV Ig for treatment of epilepsy. Sixty one patients were randomly assigned to receive either IV Ig (n = 30, for a placebo: n = 18) at three different doses (100, 250, 400 mg/kg infusion). No dose effect was found (P = 0.31). The data for the whole study population showed an improvement in 52% of patients treated with IV Ig (in accordance with previously reported open studies), compared with 27% in the placebo group; this positive trend was not significant (P = 0.09). When only the patients with partial epilepsy were assessed, a significant difference in favour of the IV Ig treatment was found (P = 0.04) and this was confirmed in the subgroup of partial epilepsy with secondarily generalised seizures (n = 30) regardless of the dose (P = 0.04). Two patients treated with IV Ig showed a partial response with Lennox-Gastaut syndrome needs no further anti-convulsant medication. The other, who had partial epilepsy, relapsed but is still better than before the IVIg.

The mechanisms of action are unknown. We found some relation between a lower serum IgA level and a better clinical response in the first study, but could not confirm this correlation in the double blind study although we noted a trend in favour of a lower serum Ig. Infusions of IV Ig in refractory epilepsy are well tolerated but the major problems related to this treatment concern its cost and the hazards of transmission of infectious diseases linked to blood derivatives. Immunoglobulins may be considered safe however, as their manufacturing procedures are known to inactivate human pathogenic viruses such as hepatitis A, B and C, and HIV.

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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. 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 of experimental epilepsies, in which we recognised their contribution in the field by citing three papers published by van Rijckevorsel and colleagues.

ACKNOWLEDGEMENTS

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