Special Issue

Immunogenicity of Botulinum Toxin

Message from the Guest Editors

This Special Issue is aimed at describing the immunogenicity of botulinum neurotoxins (BoNT). BoNTs are clostridial products and form a family of highly specialized proteins that attack the mechanism of exocytosis in a variety of cells. Different components of BoNT can all induce immune responses. Therefore, the responses to BoNTs are not uniform, and a broad spectrum of responses is observed.

Antibody formation can be life-saving on the one hand, and may be a therapy-limiting factor on the other hand. Several BoNTs have been tried for clinical applications. However, today only BoNT/A is mainly used for clinical applications owing to its long-lasting effect and low antigenicity.

However, even for the development of clinically applicable preparations of botulinum neurotoxin type A (BoNT/A), attempts at purification and improvement in biological function and reduction of immunoresistance are absolutely necessary. Thus far, in all attempts, BoNT/A-treatment can still cause primary, secondary, partial or complete treatment failure. Knowledge of the course of disease before and after BoNT/A-therapy is important.

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