

## Uses and misuses of Botulinum toxin in upper face

**Mohamed L. Elsaie**  
University of Miami, USA

Botulinum neurotoxins, causative agents of botulism in humans, are produced by *Clostridium botulinum*, an anaerobic spore-former Gram positive bacillus. Botulinum neurotoxin poses a major bioweapon threat because of its extreme potency and lethality; its ease of production, transport, and misuse; and the need for prolonged intensive care among affected persons. A single gram of crystalline toxin, evenly dispersed and inhaled, can kill more than one million people. The basis of the phenomenal potency of botulinum toxin is enzymatic; the toxin is a zinc proteinase that cleaves neuronal vesicle associated proteins responsible for acetylcholine release into the neuromuscular junction. As a military or terrorist weapon, botulinum toxin could be disseminated via aerosol or by contamination of water or food supplies, causing widespread casualties. A fascinating aspect of botulinum toxin research in recent years has been development of the most potent toxin into a molecule of significant therapeutic utility. It is the first biological toxin which is licensed for treatment of human diseases. In the late 1980s, Canada approved use of the toxin to treat strabismus, in 2001 in the removal of facial wrinkles and in 2002, the FDA in the United States followed suit. The presentation will focus on possible misuses and adverse events following injection of the toxins in the upper face.

### Biography

Mohamed L. Elsaie is an Expert in the field of Dermatology, cosmetic surgery and an author of more than 60 publications, 15 book chapters (including but not only the dermatology bestselling books (Fitzpatrick's Dermatology in General Medicine) and (cosmetic dermatology; principles and practice) Served as a principal and coinvestigator of more than 45 published researches. Accredited as a Who's Who in America and the world and a in international high impact periodicals. Awardee of the prestigious Egyptian state prize in medicine 2011 and ribbon of excellence. His book Synopsis of cosmetic dermatology and aesthetic surgery is due out in the last quarter of 2011.

[egydoc77@yahoo.com](mailto:egydoc77@yahoo.com)