

M8.2

Cosmetic Drug/Toxicology

16:15 Room 221

Botulinum Toxin – Beauty or Beast

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Botulinum toxin is a group of proteins synthesised by the clostridium botulinum bacterium. It is extremely potent and specifically lysed the SNARE proteins in the axon endings that are essential for acetylcholine release. This effect of botulinum toxin was first utilised for the treatment of squinted eyes and then for other illnesses with spastic muscles. However the most popular indication now is for uplifting in the face and in other body parts.

While the effect of botulinum toxin on appearance has been so popular, many have forgotten that it is actually a powerful beast. The toxin is the most fatal poison known to the man-kind that as little as one gram of it, if dispersed effectively, can paralyse and kill millions of people.

An outbreak of iatrogenic botulism after illicit botulinum toxin injection for cosmetic purpose was recorded in Hong Kong in 2016. The victims developed muscle weakness that progressed from a few days to weeks after the injections. The majority of the patients were managed conservatively. Three patients with moderate weakness that affected their breathing or swallowing were treated with botulinum antitoxin. None of them required mechanical ventilation and no death was recorded. Illicit products containing supra-therapeutic concentration of botulinum toxin was the likely cause of the outbreak.