

Botulinum toxin in Aesthetic medicine: A letter to the editorNoor Fatima¹, Ukasha Khalid²

Dear Madam, Botulinum toxin, commonly known as Botox (BTx), is produced by *Clostridium botulinum*, a gram-positive bacterium existing in eight types A, B, C1, C2, D, E, F, and G out of which A and B are widely used in cosmetics. By Inhibiting the release of acetylcholine, a neurotransmitter necessary for muscle contraction, it causes paralysis of muscles and achieves its therapeutic and cosmetic effects.

According to recent studies, Botox is the most popular procedure among all age groups, with almost 8.8 million procedures carried out in 2023 compared to 2.9 million in 2009.¹ It was the first licensed treatment for aesthetic indications, specifically glabellar lines, crow's feet lines, and forehead lines.² Recent literature suggests that BTx may lighten periorbital skin pigmentation by reducing the Melanin Index (MI).³ BTx and hyaluronic acid synergistically act to reduce the size of facial pores and sebum production, improving the texture of the skin.² One of the rare uses of BTx is to improve the body's laxity through non-surgical Brachioplexy in combination with Polydioxanone Threads.⁴ Despite its wide range of therapeutic benefits, clinical studies have documented adverse effects, including local skin reactions, headaches, and facial neuromuscular symptoms.⁵

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The impact of botulinum toxin extends beyond its therapeutic efficacy; it significantly enhances patients' quality of life, boosting self-confidence and psychological well-being.. As future healthcare providers, we should advance our understanding of Botulinum toxin and its therapeutic potential in Aesthetic medicine.

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NF & UK: Literature search, writing and agreement to be accountable for all aspects of the work.