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The impact of COVID-19 on aesthetic practice now and in the future

Botulinum toxin and hyaluronic acid (HA) dermal fillers and their use in medical aesthetics have seen exponential growth patterns over the past three decades. They are the foundation of treatment in medical aesthetic practices today. Following the COVID-19 pandemic, there has been an increasing emergence of both post COVID-19 infection- and vaccination-related adverse events issues following their use.

Several cases of acute and subacute hypersensitivity reactions that have developed complications following botulinum toxin type A treatment have been reported in patients who have had previous COVID-19 vaccinations or a recent COVID-19 infection. The subacute progressive nature of the allergic reaction post botulinum toxin type A has been seen to be variable in severity, with the most severe form being anaphylaxis in one case.

Zhang et al (2020) described a number of cases, including facial swelling and lip angioedema, occurring several days post-vaccination. Similar results were observed by Shome et al (2021), with perioral swelling developing 4 weeks post COVID-19 infection. Importantly, in the aforementioned case, the patient had been treated with HA fillers to the face. Additional examples of regional oedema, nodules, induration, facial erythema and tenderness have been observed in patients who have had previous HA injectables to the nose and face. In several case reports, the impact of the dermal filler has not been restricted to regional changes, but more widespread changes. These include swelling and burning in the lip, cheek and tear trough.

Akdogan et al (2021) described one patient with a score of 3 out of 10 using a VAS 10-point pain scale an injection with botulinum toxin type A. This patient had been injected every 6 months for the past 7 years.

The observed changes with botulinum toxin and, to a lesser extent, dermal filler have generally been transient and self-limiting. However, there is a caveat to this in that, according to previous reports, the onset of anaphylaxis is usually rapid, with 70% of the cases occurring within 20 minutes, as observed with either a filler or neurotoxin. In some patients, the presentation post-COVID-19 vaccine or infection occurs several hours later. This is important for all treating clinicians, as any required observation of a patient would not be occurring in the clinic and could potentially put lives at serious risk.

The observed complications are highly unpredictable and are occurring either acutely, subacutely or chronically. This infers that the mechanism in which the immune system is being affected is far more complicated than first thought. The described changes are not only reflecting an allergic reaction to a foreign antigen but are also inducing a cell-mediated reaction where the patient is targeting the implant. This has far-reaching implications for our clinical practice and will require a consensus to be developed as to how patients will be best managed in the future. Further, how patients provide consent pre-treatment will need addressing and revising accordingly. Clinicians will need better training as to how to recognise and treat complications. Vigilance and good education will be paramount moving forward. A further dilemma would be how repeated COVID-19 infection/vaccination impacts aesthetic practice in the future.

ALEXANDRA MILLS
Board member, JAN

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