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Dermatology

Man with facial rash

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A 43-year-old male presented to the emergency department (ED) with a rash to his right cheek 4 days after hyaluronic acid filler injections by a non-credentialed beautician. Examination was notable for serpiginous, violaceous erythema with overlying yellow crusting to the right mid-face and involvement of the nasal tip. Patient did not have vision complaints at this time.

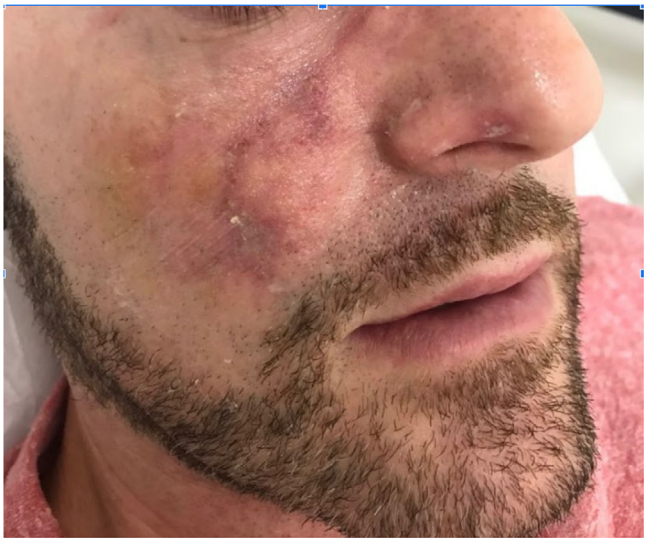

FIGURE 1 Serpiginous, violaceous erythema with overlying crust (fat necrosis) to the right mid-face after injection of hyaluronic acid into mid-face

1 | DIAGNOSIS

1.1 | Acute arterial occlusion secondary to artificial dermal fillers

Accidental facial arterial cannulation with dermal filler injections can cause occlusion and embolization. Risks of embolization may depend on practitioner experience, injection pressure, rate of filler injection, and location of injection.[1] On ED presentation, emergent dermatology and/or plastic surgery consult is required. There are serious adverse effects including tissue necrosis, blindness, or neurologic deficits.[2,3] Of all blood vessels affected, the ophthalmic artery was significantly associated with irreversible blindness. There are 2 common fillers used, autologous fat injections and hyaluronic acid. Autologous fat injection is more associated with vascular complications than is hyaluronic acid and has been reported to have more severe outcomes with higher rates of permanent blindness. Ophthalmology consult is required if the patient endorses vision changes or there are signs of skin involvement in the V1 distribution. Neurology consult is required if the patient endorses neurologic complaints. Treatment involves direct injection of hyaluronidase within and around the affected vessel, with multiple injections diffusely across the affected skin. Additional treatments include nitroglycerin paste and oral aspirin.[4] Oral antibiotics should be considered if fat necrosis is present. Once blindness occurs, rates of full recovery are low so initial precautions during filler placement, including slow injection rates with low pressure, are crucial.

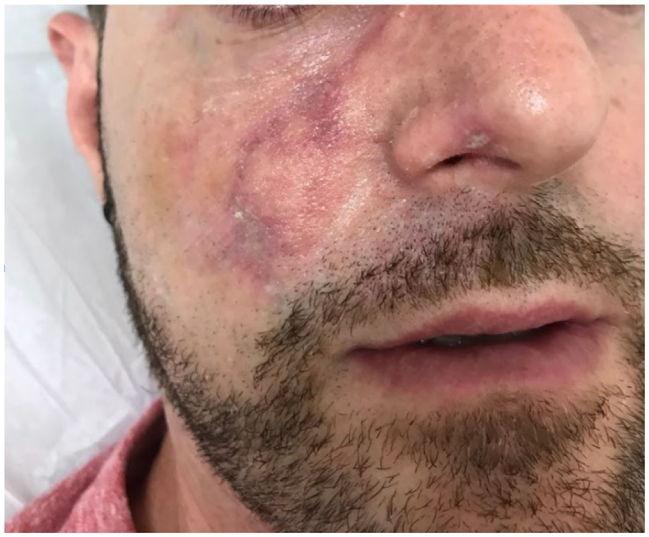

FIGURE 2 Involvement of fat necrosis on nasal tip

The patient received hyaluronidase injections and nitroglycerin paste and started on oral aspirin and antibiotics. After a 3-month follow-up in plastic surgery clinic, the patient reported full recovery of the rash with no other sequelae.

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