

Vascular complications, how to avoid and treat?

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Introduction. Vascular complications present some complications noticed during acid hyaluronic injections or autologous fat. The incidence of these complications is increasing due to increasing popularity of soft-tissues augmentation treatments. These complications include bruising, necrosis, blindness, stroke. The incidence of necrosis related to the injection of dermal fillers or autologous fat has been reported as 1 in 100,000 cases but it is believed to be higher as the cases of complications are under-reported.

Materials and methods: We provide a review on the treatment guidelines of vascular complications and present our experience. Discuss the correct and early diagnosis, managements, and follow-up.

Results: Some cases of complications from Hyaluronic acid (HA)-based dermal fillers injected in the midface or lower face are presented. Signs of vascular occlusion include: pain, blanching, livedo pattern, delayed capillary refill time, and few days after skin breakdown, necrosis. Factors believed to reduce the risk of occlusion are discussed: deep knowledge of anatomy, slow injection technique, small volumes of injection, avoidance of areas of previous scarring, aspiration prior to injection, the use of blunt-ended cannulas of 25G or larger diameters, use of lower density fillers, and patient selection. Recognition of signs and symptoms and early management is the key for success treatment. The use of high-dose, pulsed hyaluronidase is the mainstay of therapy. Others measures like heat compresses, massage of the area, use of aspirin and later antibiotics, hyperbaric oxygen therapy and the use of image guidance therapy are listed in the management protocol.

Conclusion: Vascular complications are presented as emergency situations that can lead to blindness, skin necrosis, tissue death. Injury of retinal and ophthalmic arteries can result in irreversibly complication. Deep knowledges of anatomy and good training is a must for everyone. Every practitioner practicing Aesthetic Medicine should feel competent in early identification and diagnosis, be able to appropriately management of complications in order to prevent negative outcomes for the patients.

Keywords: Vascular complication, dermal filler, hyaluronidase, necrosis, blindness.