Sudden Unilateral Visual Loss Following With Late Onset of Cerebral Infarction After a Cosmetic Nasal Hyaluronic Acid Injection

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Introduction: Because hyaluronic acid is considered safe and convenience, it is widely used in the beauty. But there are still unfavorable outcomes reported, including infection, skin necrosis, blindness, panophthalmoplegia and cerebral infarction. Herein we report a case who presented sudden unilateral blindness following with left upper limb weakness after hyaluronic acid injection.

Case Report: A 25-year-old healthy female presented to the emergency department with an one-hour history of right eye blindness after hyluronic acid injection over her nose. Physical examination(PE) revealed purpura spots over forehead, and no light reflex of right eye. The funduscopic examination revealed cherry-red spot, occlusion vessels and edema. Around 6 hours later, acute onset of left upper limb weakness was noted. PE showed left limbs muscle power grade 4. Brain CT and CT angiography showed unremarkable. Brain MRI showed many small acute infarction in the bilateral cerebral hemispheres, mainly in the right middle cerebral artery territory. Skin necrosis diminished few days later. But the vision is still not improved.

Discussion: There are multiple anastomosis between the distal branches of the facial and ophthalmic artery. An injection performed at any area over the face may contribute to retrograde embolization. Reviewing the past literatures, the symptoms of cerebral infarction always occurred within minutes after nasal injection. However, in our case, she initially experienced visual loss immediately after the injection. But 6 hours later, she started developing left side monoplegia. The reason for late onset of cerebral infarction may need further study.