

신경근육재활 및 전기진단

게시일시 및 장소 : 10 월 18 일(금) 13:15-18:00 Room G(3F)

질의응답 일시 및 장소 : 10 월 18 일(금) 15:45-16:30 Room G(3F)

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### **Isolated Infraorbital Nerve Injury after Midface Facial Implants: A case report**

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The most common cause of infraorbital nerve (ION) injury is facial trauma. However, ION injury caused by compression of the facial implants after plastic surgery is rarely reported. In general, clinicians examine ION function abnormalities based on the patient's symptoms and a physical examination because a standard nerve conduction study is not possible in the ION for anatomical reasons. The blink reflex is useful in detecting abnormalities of the trigeminal and facial nerves. To investigate the ION deficit objectively, we evaluated the changes in the blink reflex by stimulating the ION. The purpose of this case report was to utilize the blink reflex to illustrate a rare finding of ION injury and to discuss the isolated ION injury as a surgical complication after midface augmentation with alloplastic implants. A 49-year-old woman presented with the chief complaint of sensory loss of the left upper lip, nose ball, and lower palatal area. She had previously undergone plastic surgery for midface augmentation with alloplastic implants. Physical examination revealed loss of sensation in the area of the ION innervation. There was no tenderness or swelling of the left nasolabial groove area. There was no facial palsy, and facial function, which was assessed using the House-Brackmann grading system, was grade I. To investigate the ION injury objectively, we assessed the changes in the blink reflex by stimulating the ION. In the blink reflex of the infraorbital nerve, the left ipsilateral early wave (R1) and late wave (R2) were more delayed than the right ipsilateral R1 and R2 when the left side was stimulated; however, the blink reflex was normal when the right side was stimulated. This blink reflex indicated the afferent pathway of the nerve deficit in the ION. The facial three-dimensional CT was also performed to confirm ION compression by a foreign body implant. Facial three-dimensional reconstruction computed tomography findings show that there are triangular shaped high densities on the anterior sides of the left maxillary sinuses. A prominent nerve contact or compression was not apparent, but contact of the peripheral branch of the left ION was suspected. The patient was diagnosed with infraorbital neuropathy due to alloplastic facial implants. To treat the infraorbital neuropathy caused by the alloplastic facial implants, the plastic surgeon successfully performed an implant removal and decompression operation. This is the first report of isolated ION injury following midface augmentation with alloplastic facial implants. Furthermore, It is rare case because we evaluated the blink reflex of the patient to confirm the damage of the

afferent pathway of the ION. The blink reflex is an important electrophysiological diagnostic tool that can be used in addition to facial three-dimensional CT to diagnose ION injury.