Case Report

Total Monocular Blindness Following Blepharoplasty

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Abstract

Blepharoplasty is one of the most commonly performed procedures. It is among the top five most performed cosmetic surgeries. Although serious complications are possible, most physicians consider the procedure to be relatively safe. However, one of the rare complications associated with blepharoplasty is blindness. We report monocular blindness that occurred in one of our 55-year-old patients as a consequence of a retrobulbar hemorrhage during blepharoplasty.

Keywords: Blepharoplasty; Blindness; Retrobulbar hemorrhage; Visual Evoked Potential.

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Introduction

Surgical complications after eye surgeries are rare but may occur during or after the operation.

In many cases these complications coincidental conditions arising from other diseases. For example, a case has been reported in a 39-year-old male patient who underwent refractive surgery [1]. After the surgery, he saw colored rings around lights and claimed that this disturbance appeared post-operation [1]. He underwent various medical examinations, including Visual Evoked Potential (VEP), which showed a significant delay in the VEP P100 peak latency [1]. An extensive survey revealed that the patient was under amiodarone treatment for a heart problem, and the symptoms were side effects of the drug, not the operation [1]. In another example, Shushtarian et al., [2] reported a case of diplopia and blurry vision after refractive eye surgery . This condition occurred during the second attempt at refractive surgery [2]. The ophthalmologist confirmed the operation was successful without any complications [2]. The patient was tested using VEP, which showed a delay in the VEP P100 peak latency [2]. MRI examinations revealed plaques, leading to a diagnosis of multiple sclerosis. In this case, the manifestation of the disease coincidentally occurred immediately after the operation [2]. VEP examinations have been confirmed as a useful tool in diagnosing different pathological conditions in the eye [3-5].

In very rare cases, complications after eye surgeries arise from the surgical procedure itself. Blindness following a blepharoplasty procedure is an extremely rare incident [6-9]. Here, we report monocular blindness in a 55-year-old patient following blepharoplasty due to retrobulbar hemorrhage, diagnosed with VEP testing. The study protocol was approved by the institutional ethics committee. Also, the patient gave written consent before the case was reported.

Case Report

A 55-year-old patient with monocular blindness in his left eye was referred to Basir Eye Clinic. Tehran, Iran. for VEP examination. The VEP examination of the right eye using pattern reversal stimulation was normal; with the latency of the VEP P100 peak at 102 msec (the normal value for the latency of the VEP P100 peak is about 100 msec). For the left eye, which lacked vision, a flash type of stimulation was used to record the VEP. No VEP P100 peak was detected for the left eye, indicating complete blindness. The patient's medical history revealed that he had undergone a blepharoplasty operation one week prior. A careful examination of his visual system led to the final diagnosis of retrobulbar hemorrhage during the operation, which resulted in the disastrous outcome of the left eye blindness.

Discussion

A patient who suffered from monocular blindness after a blepharoplasty operation was tested with VEP examination of the blind eye, and no VEP P100 peak was observed. The cause of blindness was investigated, and the final diagnosis was retrobulbar hemorrhage, leading to permanent visual impairment.

Mahaffey et al., [6] have discussed the causes of post-surgical blindness in a review article on blindness following cosmetic blepharoplasty. In this review, 60 previously recorded cases were evaluated with a more detailed analysis of 22 cases [6]. An attempt was made to highlight the common opinions on causes and treatment held by those authors who had

previously reported and discussed their cases. A degree of retrobulbar hemorrhage was a feature common to most cases, and the final event leading to permanent visual impairment was usually ischemia of retinal or optic nerve tissue, which is similar to the result of the present report [6].

Conclusion

Blindness after blepharoplasty is a very rare incident, but ophthalmologists should be aware of this possibility and handle surgical complications promptly to minimize post-operative complications.

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Footnotes and Financial Disclosures

Conflict of interest:

The authors have no conflict of interest with the subject matter of the present manuscript.