
Pseudo-epicanthus after blepharoplasty: Case report

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ABSTRACT

Introduction: The article demonstrates a potential type of wound healing after upper eyelid blepharoplasty and presents distinct views of expert eye and plastic surgeons on addressing postoperative pseudo-epicanthus. **Case presentation:** A 45-year-old Caucasian woman underwent blepharoplasty by a standard procedure without complications. Photo-documentation of the patient was taken before the surgery, and in follow-up weeks 1, 9 and 28. Suture was removed one week after surgery, and the wound healed by first intention. After a few weeks, the woman began to feel a slight pull of the upper eyelid skin, nasally. Nine weeks post surgery, examination of the area revealed a slightly swollen postoperative scar and a fine epicanthus which the patient found bothersome as well as unappealing. Ophthalmologists recommended a surgical correction while plastic surgeons, with such an insignificant finding, chose pressure massage and postponing reoperation. Upon examination at 28 weeks after surgery, the small scar was pale, soft, and barely noticeable. The pseudo-epicanthus disappeared and the patient was satisfied even without reoperation. **Conclusion:** The process of wound healing has its own progression and it is far from complete at 9 weeks after surgery. Early surgical intervention for less marked pseudo-epicanthus may be counterproductive and may delay or impair the effect of the surgery.

Key words: blepharoplasty, pseudo-epicanthus, wound healing.

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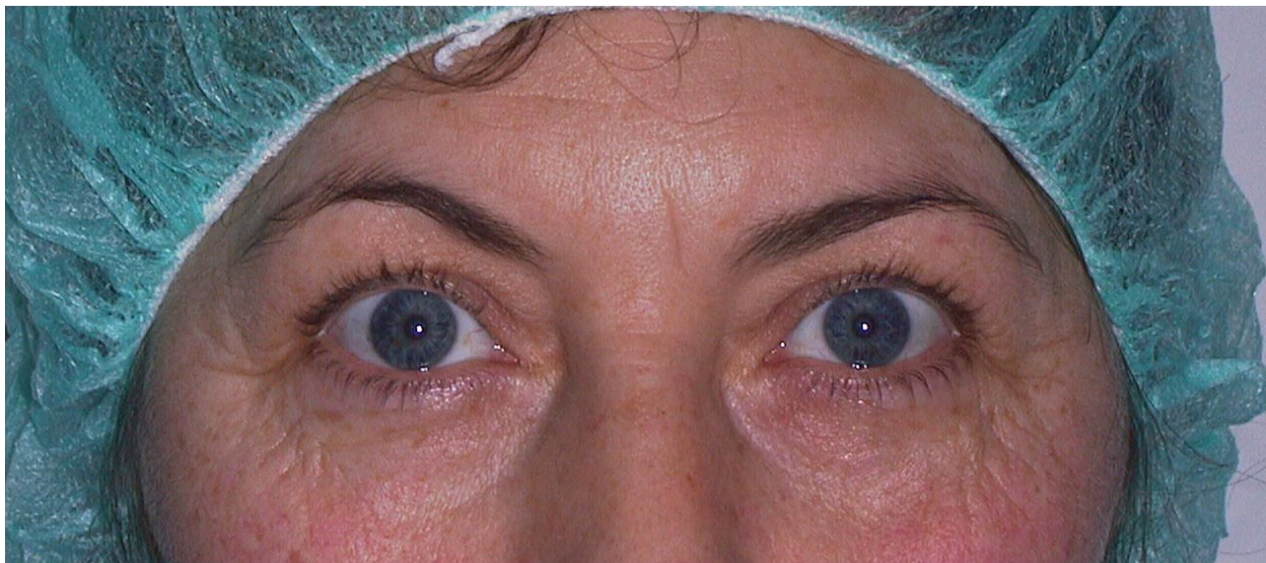
INTRODUCTION: The aim of the article is on addressing postoperative pseudo-epicanthus. to demonstrate a potential type of wound healing after blepharoplasty and present distinct opinions of eye and plastic surgeons

CASE REPORT: In 2007, a 45-year-old Caucasian woman underwent upper eyelid

blepharoplasty by a standard procedure without complications. Photographic documentation of the patient was taken

before the surgery (Figure 1), and in follow-up weeks 1, 9 and 28.

Figure 1



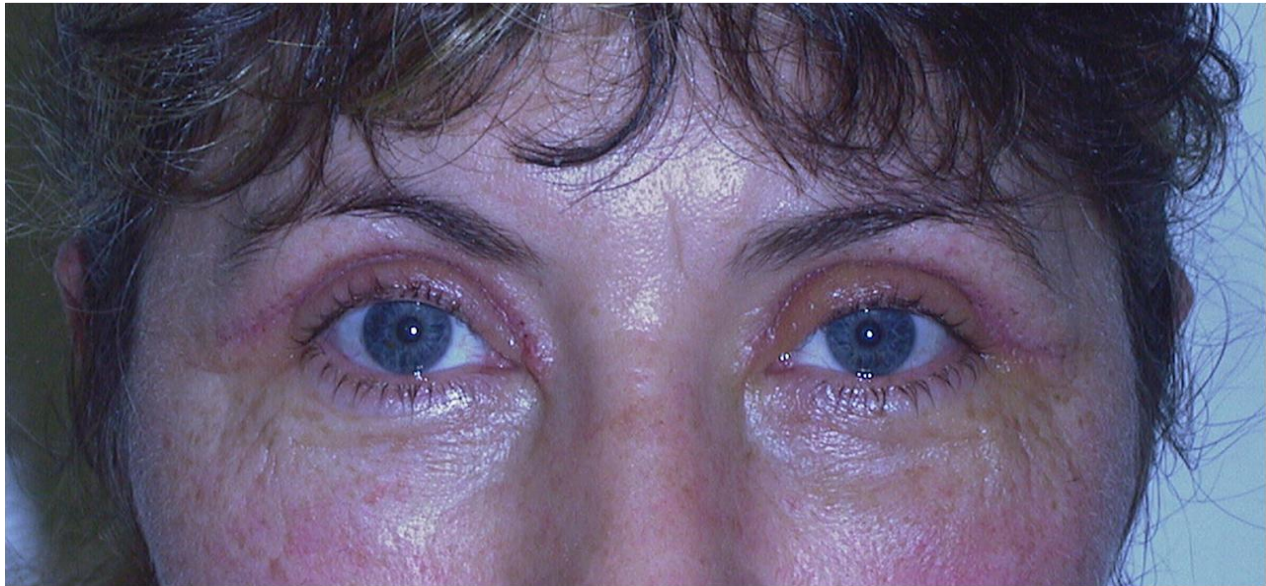
At the beginning of the procedure, the range of excess skin was marked in the usual way with eyelids closed, i.e. the lower boundary was drawn over most of the eyelid length in the skin fold at the upper edge of the tarsal plate, continued nasally in the flexion line and led temporally from the outer eye corner in the direction of expression wrinkles and at an angle to the eyebrows. The upper boundary on the skin was marked with tweezers with closed eyelids. After applying a sparing local anaesthesia, the skin of the eyelids within the indicated range was removed with a scalpel while the usual

minor bleeding was stopped by bipolar radio frequency coagulation. Removal of the medial and lateral portions of orbital fat was followed by suturing the skin with a continuous braided silk suture with a thickness of 0.7 EP. Note: in blepharoplasty, wounds can be also sutured using intradermal monofilament polypropylene with a thickness of 0.7 EP. At the end of the procedure, the wound was sealed with a 6-mm wide, breathable, water-resistant sterile patch. On the day of the surgery and the following two days the patient applied sterile cold compresses as recommended, and

stitches were removed 6 days after the surgery after greasing the eye patches with antiseptic eye ointment. The surgical wound

healed by first intention. There was a subsiding oedema on the eyelids and mild skin suffusion (Figure 2).

Figure 2



The patient was instructed to begin performing pressure massage of the postoperative wound 2 weeks after the surgery using an indifferent cream without perfume. Several weeks after the surgery, the woman began to feel nasally a slight pull of

the upper eyelid skin. Nine weeks post surgery, examination of the area revealed a slightly swollen postoperative scar and a fine pseudo-epicanthus which the patient found bothersome as well as unappealing (Figure 3).

Figure 3



As the first author had previously not encountered such complication and tried to avoid potential further unnecessary difficulties or errors in the follow-up postoperative care, he discussed the issue with more experienced colleagues engaged in eyelid surgery. Experienced ophthalmologists recommended surgical correction within 1-2 months after the surgery based on the Z or YV plasties^[1-4]. Experienced plastic surgeons, however, due to the insignificant finding, recommended performing a pressure massage of the scar and postpone any reoperation for at least three months.

OBSERVATION AND RESULTS: The patient agreed to the conservative procedure recommended by the plastic surgeons. Upon examination at 28 weeks after surgery, the small scar was pale, soft, and barely noticeable. Pseudo-epicanthus disappeared and the patient was satisfied even without reoperation (Figure 4).

Figure 4



DISCUSSION: The article highlights the distinct views on the treatment of fine pseudo-epicanthus and want to confront, not to generalize the opinions of eye and plastic surgeons. The specialists arguing for early reoperation based their opinions primarily on the insistence of the patient, especially because she underwent the blepharoplasty mainly for aesthetic reasons.

On the other hand, the doctors who favoured the conservative approach would resist the pressure from the patient and tried to postpone the intervention due to the insignificant finding.

A good understanding of the wound healing process should play an important role in

addressing these issues. In the literature, wound healing is divided into two classification scales: a three- and a four-stage scale^[5-8]. They differ only by whether the wound phase is included in the inflammatory phase or not. The phases are contiguous and even partially overlap, and their duration is of variable length depending on several factors - state of the regulation systems, method of treatment, nutrition, wound contamination, etc.

The acute phase or the wound phase begins at the start of the surgery, lasts usually between minutes and hours, and is completed within 24 hours by clot formation in the wound or wound closure and by the

onset of inflammatory signs. While for the healing by first intention the inflammatory phase usually lasts for four days, during the secondary or tertiary healing it is accompanied by the proliferative phase during almost the entire time before the wound is closed. In the inflammatory phase, it is possible to demonstrate cell infiltration of the wound edges, platelet agglutination, leukocyte migration from blood vessels, the release of H-substances with subsequent hyperaemia and oedema, dilated venules and lymphatic blockade. The neutrophil migration and phagocytosis is initiated which removes products of decay, bacteria and/or minor contaminants. The proliferative phase tightly closes the wound; it can be observed histologically for at least 42 days and it is clinically evident for more than three months, sometimes even a year. At this stage, collagen is synthesised by the activation of fibroblasts, capillaries proliferate and the swelling persists. If the proliferation phase persists for a long time or is too fast, it leads to the formation of hypertrophic or keloid scars. At the stage of maturation, the aging of collagen makes the scar pale, softer and flatter. In adults, it takes approximately nine

months, in children up to 2 years. Unless function of the tissue or an organ is compromised, we don't attempt to influence the process surgically at this stage either in order not to activate the process and further proliferation.

Before the upper eyelid surgery it is recommended to check, with your fingers applied to the sides of the nose and pulling the skin caudally (patient's eyes open) for the appearance of, or the accentuation of a previously indicated epicanthus. In such case we recommend that the patient is informed of a possible formation of pseudo-epicanthus, especially in the case of eyelids with a large excess of skin in the inner corners. In that case, it is better to choose a slightly shorter cut so the pull of the scar does not contribute to the formation of pseudo-epicanthus. Typically, after removing the existing large medial prolapses the excess skin is significantly reduced .

CONCLUSION: The process of wound healing has its own progression and is far from complete at 9 weeks after surgery. With an insignificant finding as described above, an early surgical intervention may be counterproductive by augmenting and extending the proliferative phase, and may

therefore delay or impair the effect of the surgery.

The treatment of diseases of the eyelid is the subject of several disciplines, mainly ophthalmology and plastic surgery. With the high number and extent of procedures, plastic surgeons performing facial surgery may be able to provide valuable information. Mutual cooperation can therefore be beneficial not only for patients and ophthalmologists, but also for forensic reasons.

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