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Localized Telogen Effluvium after Face Lift Surgery

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Dear Editor:

A 62-year-old woman presented at Kyung Hee University Hospital at Gangdong with a 2-month history of frontal and bitemporal shedding and thinning. Two months prior to visiting our clinic, she had undergone rhytidectomy at a local plastic surgery clinic. Her past medical history was not significant. There was no drug history, weight change, or chronic illness, and the patient denied any other trauma history. The physical examination revealed symmetric frontal and bitemporal thinning and decreased hair density (Fig. 1A, B). In a hair pull test, ≥ 10 hairs were easily pulled from around the suture line of the rhytidectomy;

however, the hair pull test was negative in other parts of the scalp. On transverse sections of a 5-mm punch biopsy specimen, normal follicular density and increased numbers of telogen hair follicles were observed. Peribulbar inflammation, scarring, and hair shaft abnormality were not observed (Fig. 1C). On the basis of the clinical and histopathologic findings, she was diagnosed with telogen effluvium, which occurred after rhytidectomy. Without any treatment, the patient noted the natural recovery of hair shedding, and the regrowth of many hairs was observed around the affected areas 4 months after rhytidectomy (Fig. 2).

Fig. 1. (A, B) Hair thinning and a decreased hair density is observed symmetrically along the frontal and bitemporal incision lines. (C) Increased numbers of telogen hair follicles are found, and peribulbar inflammation, scarring, and hair shaft abnormality are not observed on the scalp biopsy (H&E, $\times 100$; transverse section).

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Fig. 2. Three months after the rhytidectomy, hair regrowth is detected around the frontal and bitemporal incision lines.

Temporary hair loss following rhytidectomy has been reported to occur in up to 8.4% of patients after rhytidectomy¹. Several causes have been suggested, which include undue tension at the time of flap closure, excessively thin flaps with a diminished blood supply to the hair follicles, and direct trauma to the hair follicles during dissection². Telogen effluvium is also known as the cause of temporary hair loss after rhytidectomy³.

The hallmarks of an acute telogen effluvium include diffuse shedding sometimes with accentuated hair thinning, a normal appearing scalp, and a markedly positive pull test⁴. Possible causes include a high fever, postpartum, severe illness, severe psychological distress, major surgery, thyroid disease, drugs, and crash diets⁴. It is a reversible disorder once the initiating factor is eliminated and no specific treatment is needed. In this case, hair loss began 2 months postoperatively, and a scalp biopsy at the beginning of the hair loss revealed an increased ratio of telogen hair follicles and few peribulbar inflammatory cell infiltrates. Without any treatment, the hair shedding ceased and regrowth of the hairs was observed around the frontal

and bitemporal incision lines. Based on all this evidence, the authors concluded that localized telogen effluvium could have been the cause of temporary hair loss after rhytidectomy. Moreover, a study reported that preoperative and postoperative prophylactic use of minoxidil reduces the percentage of hair loss that occurs after rhytidectomy⁵, and this finding also supported our conclusion. Herein, we report on the first case of telogen effluvium that occurred after rhytidectomy with histopathologic findings and a natural course of recovery. Dermatologic surgeons should be aware that localized telogen effluvium can cause temporary hair loss after face lift surgery. To prevent temporary hair loss, surgeons must reduce the trauma to the hair follicles by making incisions that are parallel to the hair follicles, reduce tension to the scalp around the suture lines, and ensure that the skin flap is not too thin.

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