

# A New Complication Reported for the First Time After Rhinoplasty: Demodicosis

## Rinoplasti Sonrası İlk Kez Bildirilen Yeni Bir Komplikasyon: Demodikozis

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### Dear Editor,

Demodex mites settle in the pilosebaceous unit and Meibomian glands and can proliferate in the cases of increased sebum, inflammation, and immunosuppression. Demodex mites can be demonstrated by superficial skin biopsy and normal mite density is  $\leq 5$  mites/cm<sup>2</sup> (1). Demodicosis is mentioned if there are clinical symptoms and the Demodex density is  $> 5$  mites/cm<sup>2</sup>. These symptoms include burning, stinging, itching, redness, skin swelling, and a grated/roughness feeling.

We would like to present a 29-year-old female patient who developed demodicosis after rhinoplasty. The patient applied to the ear nose throat clinic with complaints of severe itching, burning, and stinging sensation, redness, and increased acne on her face on the 16<sup>th</sup> postoperative day. The patient had no complaints other than occasional dryness on her face (Figure 1a). The patient was consulted with a dermatologist. In dermatological examination, the patient had widespread erythema, squamous and papulopustular lesions on her face except periorbital and perioral regions (Figure 1b). There were no medical features in the past. Dermatoscopic examination showed enlarged follicular openings and gray spots resembling demodex tails. We took skin surface biopsies from the patient's nose, forehead, and bilateral cheeks with prediagnosis of demodicosis. Microscopic examination revealed a higher demodex density in all areas ( $> 5$  mites/cm<sup>2</sup>, Figure 1c). The patient, diagnosed with demodicosis, was advised to wash her face with a cleanser containing tea tree oil twice a day, apply a cream containing a combination of tea tree oil and azelaic acid twice daily, and use a moisturizing cream. The

complaints of the patient had regressed, and her appearance had improved one month later (45<sup>th</sup> day after surgery) (Figure 1d).

Skin problems after rhinoplasty are essential since they may cause patients to be dissatisfied with aesthetics. In a study investigating the effect of skin type on skin problems that may occur after rhinoplasty, preoperative and postoperative sebum levels in the nasal skin were measured and compared (2). The authors reported that postoperative sebum levels increased significantly in both oily and dry skin types. Increased sebum level is a risk factor for demodex mites to multiply on the skin and can induce demodicosis, as seen in our patient (3).

We could not find any reported case of demodicosis after rhinoplasty. A patient who developed skin complaints similar to ours after rhinoplasty was presented by Taş (4) and evaluated as rosacea. In this case, dermoscopic findings were not mentioned, and Demodex mites were not investigated. It was stated that the resulting exacerbation healed quickly, and the symptoms disappeared completely after two months. Rosacea is a chronic disease associated with genetic predisposition, and the increase in demodex density may also trigger rosacea. The patient reported by Taş (4) may be a developing demodicosis based on pre-existing rosacea or a secondary form of demodicosis similar to ours.

Here, we presented the first case of demodicosis developing after rhinoplasty. We would like to emphasize the importance of dermatoscopic examination and investigating demodex mites in patients presenting with burning, stinging, erythema, and papulopustular lesions on the face.



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**Figure 1.** a. There are no findings on the patient's face in the preoperative image, b. In the patient's image on the 16<sup>th</sup> postoperative day, widespread erythema, squamous and papulopustular lesions are observed on the face, c. Demodex mites in microscopic examination ( $\times 10$ ), d. The patient's image on the 45<sup>th</sup> postoperative day shows the regression of the findings

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**Anahtar Kelimeler:** Demodeks, parazit, rinoplasti

#### \* Ethics

#### \* Authorship Contributions

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