

# Rapidly Growing and Bleeding Lesion in the Lateral Part of Eyebrow: Pilomatrixoma

## Kaş Lateralinde Hızla Büyüyen ve Kanayan Lezyon: Pilomatriksoma

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**ABSTRACT** Pilomatrixoma is a benign tumor in which the overlying skin is usually normal or has some reddish-bluish discoloration. Common locations are the head and neck region, however eyelid or eyebrow may infrequently involved. In this case report, a 21-year-old male who had a rapidly growing mass with ulceration and bleeding on the lateral aspect of his right eyebrow was evaluated with computerized tomography and histopathology. Although ulceration, bleeding and sudden increase in the size of the lesion suggested malignancy, contrasted computerized tomography and histopathology revealed pilomatrixoma. The present case is reported to emphasize that pilomatrixoma should be kept in mind in differential diagnosis of young patients with subcutaneous mass, ulceration, and rapid grow on the eyebrows.

**Keywords:** Eye brows; pilomatrixoma; ulcer; hemorrhage

**ÖZET** Pilomatriksoma üzerini kaplayan cildin genellikle normal olduğu veya kırmızımsı-mavimsi renge solan iyi huylu bir tümördür. En sık lokalizasyonları baş ve boyun bölgesidir fakat göz kapağı veya kaş da nadiren tutulabilir. Bu vaka sunumunda, sağ kaş lateralinde ülserasyon ve kanama ile beraber hızla büyüyen kitlesi olan 21 yaşında erkek hasta bilgisayarlı tomografi ve histopatoloji ile değerlendirildi. Her ne kadar ülserasyon, kanama ve hızlı büyüme kötü huylu tümörleri düşündürse de, kontrastlı bilgisayarlı tomografi ve histopatoloji pilomatriksomayı gösterdi. Bu olgu, kaş üzerinde ülser ve hızla büyüyen cilt altı kitlesi olan genç hastaların ayırıcı tanısında pilomatriksomanın akıldan tutulmasını vurgulamak için sunulmuştur.

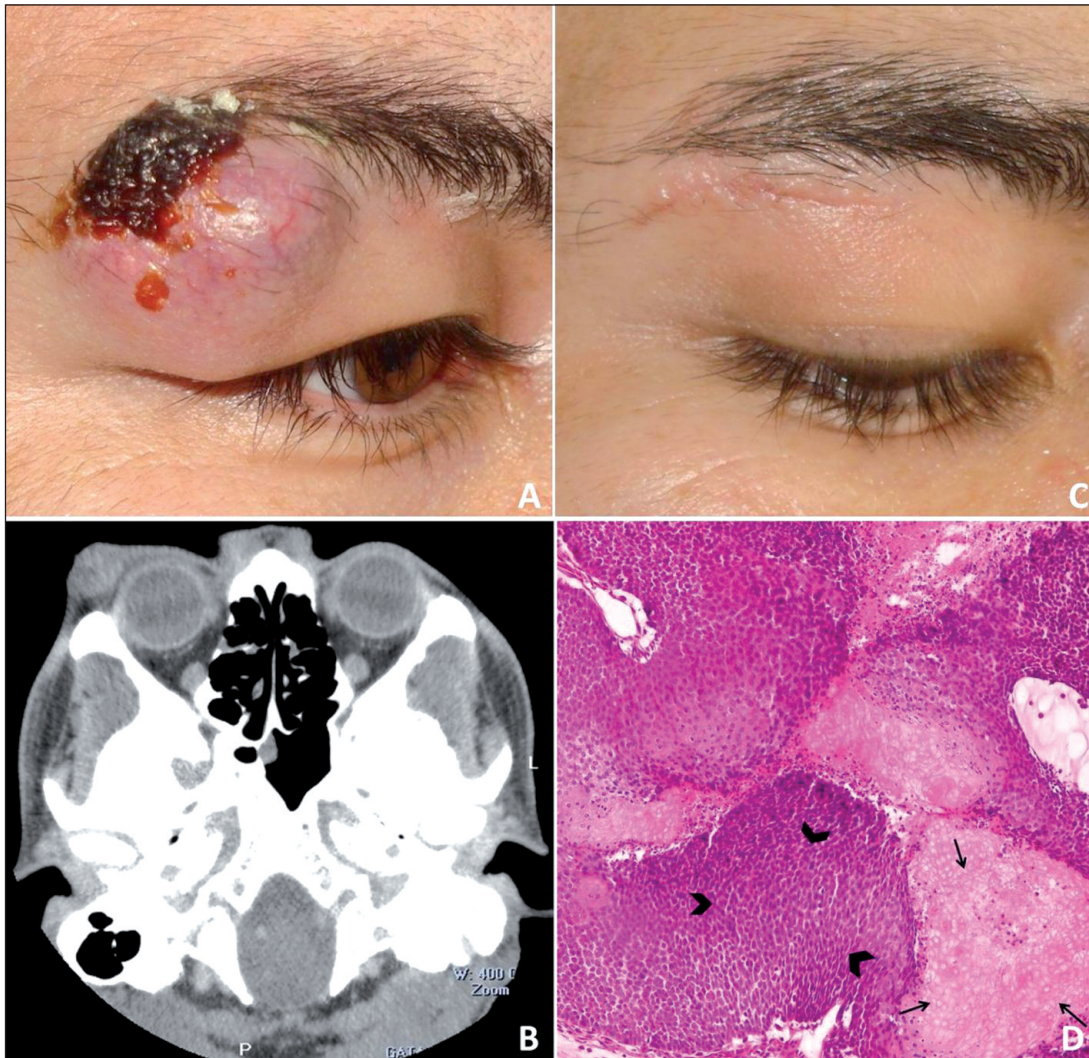
**Anahtar Kelimeler:** Kaşlar; pilomatriksoma; ülser; kanama

Pilomatrixoma is a benign tumor which originates from the matrix of the hair roots in the first 2 decades of life.<sup>1</sup> Common locations are the head and neck region, eyelid or eyebrow are relatively infrequent.<sup>2</sup> The clinical characteristics include slowly enlarging, asymptomatic, subcutaneous mass with overlying a normal or reddish-bluish skin.<sup>3</sup> In most cases, tumor diameter is smaller than 1 cm, but the size can range from 0.5 to 3 cm.<sup>3</sup> We present a rare case of pilomatrixoma beneath the eyebrow, noting the ulcerated areas on the surface, bleeding and rapid growth which was suspected to be a malignancy.

## CASE REPORT

A 21-year-old male was referred to our department with a rapid growing and bleeding mass on his right eyebrow for the last one and a half months. Ophthalmic examination revealed a firm, non-tender nodule measuring 2 x 2 cm in size on the lateral aspect of the right eyebrow. The overlying skin was reddish-blue in color and crusted due to bleeding (Figure 1A). The mass was not adherent to deep tissues. The patient had no trauma history, nor did he have any previous lesion in this area before. Best corrected visual acuity was 20/20 in both eyes and

fundus examination revealed unremarkable. Given the clinical appearance, bleeding and rapid growth of the tumor, the initial clinical diagnosis was a malignant lesion or vascular tumor. Contrast-enhanced axial tomography was performed to rule out deep extension prior to surgery, and showed well margined and heterogeneously enhanced nodular soft tissue mass (Figure 1B). The lesion was totally excised including overlying ulcerated skin under local anesthesia (Figure 1C). The lesion was extending into sub-cutis but it was sharply demarcated, and there were two cell types: basophilic cells (Figure 1D - arrow head) and eosinophilic shadow



**FIGURE 1:** A) Firm, non tender nodule on the lateral aspect of the right eyebrow, reddish-blue in color and crusted due to bleeding B) Contrast-enhanced axial tomography showed well margined and heterogeneously enhanced nodular soft tissue mass C) Good cosmetic appearance after total excision D) Basophilic (arrow head) and eosinophilic cells (arrows) (Haematoxylin and eosin stain, x 200).

cells (Figure 1D-arrows). Eosinophilic cells had more cytoplasm than basophilic cells. They had distinct cell borders but did not show nuclear staining. There were plenty of mitoses and mild inflammatory cell infiltrates. Hyalinization, giant cells, hemosiderin, calcification or squamous change were not seen. The diagnosis of pilomatrixoma was made.

## DISCUSSION

Pilomatrixoma is often mistaken for other lesions and the correct diagnosis is usually made following histological examination.<sup>4</sup> The differential diagnoses include dermoid cyst, hemangioma, keratoacanthoma, foreign body granuloma and juvenile xanthogranuloma.<sup>1,4</sup> The histopathology includes dark stained basal cells, eosinophilic keratinized ghost or shadow cells, chronic inflammation, giant cell reaction, calcification and ossification, and hemorrhage.<sup>1</sup> Malignant form, pilomatrix carcinoma is very rare variant which usually have necrosis, high mitotic activity, cytological atypia and sometimes lymphatic or vascular invasion.<sup>5</sup>

In the present case, although ulceration, bleeding and sudden increase in the size of the lesion suggested malignancy; atypical mitotic figures, necrosis, and peri-neural, lymphatic, or vascular invasion were absent. Although pilomatrixoma is a benign tumor, there is an aggressive or proliferative giant variety that histology shows a high mitotic rate and excessive basal proliferation, which can show skin discoloration, ulceration, and easily misdiagnosed as malignancies.<sup>3</sup>

The management modality of pilomatrixoma is complete excision.<sup>1</sup> Tendency of recurrence may rarely be seen as a result of incomplete resections.<sup>1</sup> In the present case, excision of the tumor with narrow margins resulted with good cosmetic result without recurrence at the 1 year follow up.

The most prominent characteristics of present case were bleeding, ulcerated areas on the surface and rapid growth simulating a malignancy. Pilomatrixoma should be kept in mind in such cases on the eyelid or eyebrow area and should be differentiated from malignant tumors.

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### Conflict of Interest

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### Authorship Contributions

**Idea/Concept:** Yusuf Uysal; **Design:** Mehmet Talay Köylü; **Control/Supervision:** Yusuf Uysal; **Data Collection and/or Processing:** Mehmet Talay Köylü, Gökçen Gökçe; **Analysis and/or Interpretation:** Mehmet Talay Köylü; **Literature Review:** Mehmet Talay Köylü; **Writing the Article:** Mehmet Talay Köylü; **Critical Review:** Yusuf Uysal; **References and Fundings:** Yusuf Uysal; **Materials:** Yusuf Uysal, Osman Melih Ceylan.

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