Renal Cell Carcinoma Metastizing to Skin Over Temporal Region: A Rare Clinical Presentation

Temporal Bölge Üzerindeki Cilde Metastaz Yapan Renal Hücreli Karsinom: Nadir Bir Klinik Sunum

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Abstract
Renal cell carcinoma (RCC) is known to undergo metastasis during diagnosis and after a period of primary therapy. Although the lung, liver and spleen are presented as the most metastatic organs, RCC rarely metastasizes to thescalp. Likewise, ulceration and infected scalp lesions should be excised with no lesions and RCC should be evaluated with immunohistochemistry with the suspicion of RCC. Here we presented a rare case of metastatic RCC ulceronodular lesion that led to a deep anemia of dense hemorrhage in the left temporal region 10 years after nephrectomy and discussed the nature of RCC skin metastasis in the light of current literature.
Keywords: Metastasis, Renal cell carcinoma, Scalp

Öz
Renal Hücreli Kanser (RHK) tanı esnasında ve primer tedaviden seneler sonra metastaz yapmasıyla oldukça bilinmektedir. Akciğer, karaciğer ve dalak en çok metastaz olan organlar olarak sunulsa da RHK nadiren skalp üzerine metastaz yapar. Benzer şekilde, ülsere ve enfekte skalp lezyonları da lezyonsuz sınırlarla eksize edilmeli ve RHK şüphesiyle immünohistokimya ile değerlendirilmelidir. Biz burada nadir görülen nefrektomiden 10 sene sonra sol temporal bölgede yoğun kanamaya bağlı derin anemiye yol açan bir metastatik RHK ülseronodüler lezyonlu vakayı sunduk ve güncel literatür eşliğinde RHK'un cilt metastazının doğasını tartıştık.

Anahtar Kelimeler: Metastaz, Renal hücreli karsinom, Skalp

Introduction

Cutaneous cancers include both primary carcinoma and secondary metastases for various types of carcinomas. Renal cell carcinoma (RCC) is a cancer originating from the proximal tubule epithelium of the kidney and is commonly known to metastasize to the lungs and liver, rarely metastasizing to the skin, muscle, thyroid or pancreas (1). Although, skin metastases of RCC to head and neck are also extremely scarce, the prognosis of such patients is unfavorable with less than 10% 5-year survival (2). RCC and its metastases may also occur with anemia as a consequence of erythropoietin suppression. If it is surgically operable, skin metastasis of RCC is excised. This surgical treatment can be followed by adjuvant radiotherapy, cytokine therapy, or immunotherapy. Head and neck metastases of RCC are often associated with lung metastasis. However, the differential diagnosis of a symptomatic primary RCC or RCC without skin lesion may be appropriate for early diagnosis.

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Here, we presented a rare case of metastatic RCC represented by ulceronodular lesion in the left temporal region with severe hemorrhage leading to deep anemia 10 years after the nephrectomy, and discussed the nature of RCC skin metastasis in the light of current literature.

Case

A 75-year-old male patient presented with a rapidly growing ulceronodular lesion in the left temporal region with a history of 4 months of bleeding. Hemoglobin (Hb) level was 5 gr/dl, all other laboratory tests were within normal limits when referring to our plastic surgery clinic. The fragile lesion was 10cmX10cm in diameter with a firm consistency and necrotic surface (Figure 1).



Figure 1. Preoperative appearance

He had a history of radical nephrectomy 10 years prior to presentation. No further treatment had been performed. Since the lesion was actively bleeding, the ulcerative nodule was completely excised with a 5 mm tumor free edge under general anesthesia. The

superficial fascia of temporal muscle was also excised. The surgical border extended to temporal muscle. The defective area over temporal muscle was covered with split thickness skin graft detached from lateral thigh. The postoperative follow up was uneventful and Hb level increased to normal limits spontaneously. Microscopic examination revealed a neoplasm with high mitotic index, with large areas of necrosis, extending from the epithelium to the subcutaneous tissue. Neoplastic cells had pleomorphic nucleus, transparent or pale eosinophilic cytoplasm and were positive with pan CK, EMA, CD10, Vimentin but negative for CK7, S100, HMB45 CEA (Figure 2 A, B, C, D, E). Based

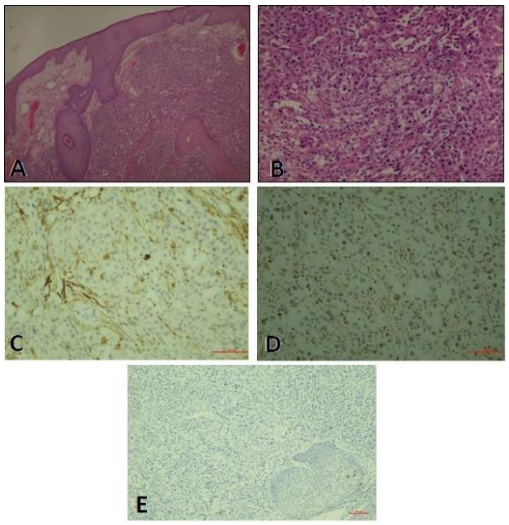


Figure 2. A: Cellular neoplasm superficially and deeply infiltrating the dermis H&Ex40 **B:** Tumor cells with transparent and pale eosinophilic cytoplasm forming trabecular and pseudoglandular structures H&E x200 **C:** CD10 positivity in tumorcells IHCx200, **D:**Vimentin positivity in tumor cells IHC x200 **E:** HMB45 negativity in tumor cells IHC x200

on the morphology and immunophenotype primer, a study of the genitourinary system was first suggested.

After histopathological confirmation the patient was referred to an oncologist. Upon further evaluation several metastatic lesions in the lung and spleen were detected by CT scan study. The patient and relatives opted against further interventions and treatment options. The patient readmitted to our outpatient clinics with newly developed nodular skin lesions at postoperative 12th month (Figure 3) and denied further treatment and so lost to follow-up.

Written Consent: Written consent was taken from the patient on 02.01.2016.



Figure 3. Postoperative 12th month appearance

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