

Acral Metastasis: A Very Rare Metastatic Site from Basaloid Squamous Cell Carcinoma of the Tonsil

Akral Metastaz: Tonsilin Bazalit Skuamöz Hücreli Karsinomunda Çok Nadir Bir Metastatik Bölge

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ABSTRACT

Basaloid squamous cell carcinoma (BSCC) is a variant of squamous cell carcinoma occurring in the tonsils. To the best of our knowledge, this represents the first report of acral metastasis from BSCC of the tonsil. We report a 46-year-old male with BSCC of the tonsil, with initial T2N0M0 treated with surgery and adjuvant chemo-radiation. Post treatment surveillance clinical examination, endoscopy and computed tomography scan did not reveal any signs of loco-regional recurrence. Three years later, he presented with pain and swelling of the distal phalanx of the left middle finger. Palliative Ray amputation of the distal phalanx of left middle finger was performed with histopathological evidence of metastatic basaloid squamous cell carcinoma. Scrutiny of the distal phalanx specimen and the initial tumour in the tonsil showed morphologically similar tumour concluding metastatic BSCC of the left middle phalanx. Acral metastasis is rare in squamous cell carcinoma of the tonsil but can occur years after completion of treatment.

Key Words: Basaloid squamous cell carcinoma, basaloid SCC of the tonsil, head and neck cancer, acral metastasis.

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ÖZET

Bazaloid yassı epitel hücreli karsinom (BSCC) bademciklerde meydana gelen bir yassı epitel hücreli karsinom çeşididir. Bildiğimiz kadarıyla, bademcik BSCC'nin ilk akrall metastaz raporunu temsil eder. Biz 46 yaşında, bademcik BSCC'si olan, ilk T2N0M0 cerrahi ve adjuvan kemo-radyasyon ile tedavi edilen 46 yaşında bir erkek hastayı sunuyoruz. Tedavi sonrası gözetim klinik muayenesi, endoskopi ve bilgisayarlı tomografi taraması, lokal-bölgesel nüks belirtisi göstermedi. Üç yıl sonra, sol orta parmağın distal falanksında ağrı ve şişlik ile başvurdu. Sol orta parmağın distal falanksının palyatif ışın amputasyonu, metastatik bazaloid skuamöz hücreli karsinomun histopatolojik kanıtı ile yapıldı. Distal falanks örneğinin ve bademcikteki ilk tümörün incelenmesi, sol orta falanksın metastatik BSCC'sini sonuçlandıran morfolojik olarak benzer tümör gösterdi. Akrall metastaz bademcik yassı hücreli karsinomunda nadirdir, ancak tedavinin tamamlanmasından yıllar sonra ortaya çıkabilir.

Anahtar Sözcükler: Basaloid skuamöz hücreli karsinom, bademcik basaloid SCC, baş ve boyun kanseri, akrall metastaz

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INTRODUCTION

Basaloid Squamous Cell Carcinoma (BSCC) is a variant of Squamous Cell Carcinoma (SCC) with high proliferative activity. These tumours have been identified in the head and neck region, primarily occurring in the oropharynx (61.9%) and larynx (33.3%) (1). Another retrospective study found that compared to other subsites, the hazard ratio for death for BSCC in the oropharynx, was statistically higher from that for SCC (2). Here, we present a rare case of distant metastasis of BSCC of the tonsil involving the finger after achieving loco-regional control. To the best of our knowledge, this represents the first report of acral metastasis from BSCC of the tonsil.

CASE REPORT

A 46-year-old man was diagnosed with left tonsillar BSCC, T2N0M0 when he presented with peroral bleeding for 1 month. He underwent extended tonsillectomy with bilateral lateral neck dissection and adjuvant concurrent chemoradiotherapy (60Gy). Post treatment surveillance clinical examination, endoscopy and computed tomography scan did not reveal loco-regional recurrences. Three years later, he complained a month history of pain and swelling of the left middle finger, left upper chest, poor appetite and significant weight loss. Intraoral examination and endoscopy did not reveal any mass over both tonsillar bed. Neck examination revealed a well-healed neck dissection scar with no cervical lymphadenopathy palpable.

There was a mass over the left suprasternal region, measuring 4x4cm, which was tender, fixed and hard in consistency. There was reduced breath sound at the right lower lung suggestive of consolidation. Examination of the left hand revealed an extremely tender and friable mass over the distal phalanx of the middle finger.

Computed tomography (CT) scan of the thorax showed a consolidation mass at the right lower lobe and lytic lesions involving of the left 5th rib, 8th thoracic vertebrae and the sternal head of left clavicle (Fig. 1). He underwent palliative amputation of the left middle distal phalanx following recalcitrant pain even with optimal analgesics. His recovery following the surgery was uneventful with tolerable pain on aqueous morphine. We compared the tumour morphology of the left middle finger with the earlier specimen from the tonsil taken during his initial tumour extirpation three years ago. Both the tumour of the tonsil (Figure 2A&B) and left middle finger (C&D) were morphologically similar, concluding a diagnosis of metastatic basaloid squamous cell carcinoma of the tonsil. He was managed with monthly carboplatin and gemfibrozil palliative chemotherapy and he later succumbed after 6 months of diagnosis.



Figure 1. Sagittal view of the CT thorax showed a lytic lesion of the 5th rib (white arrow).

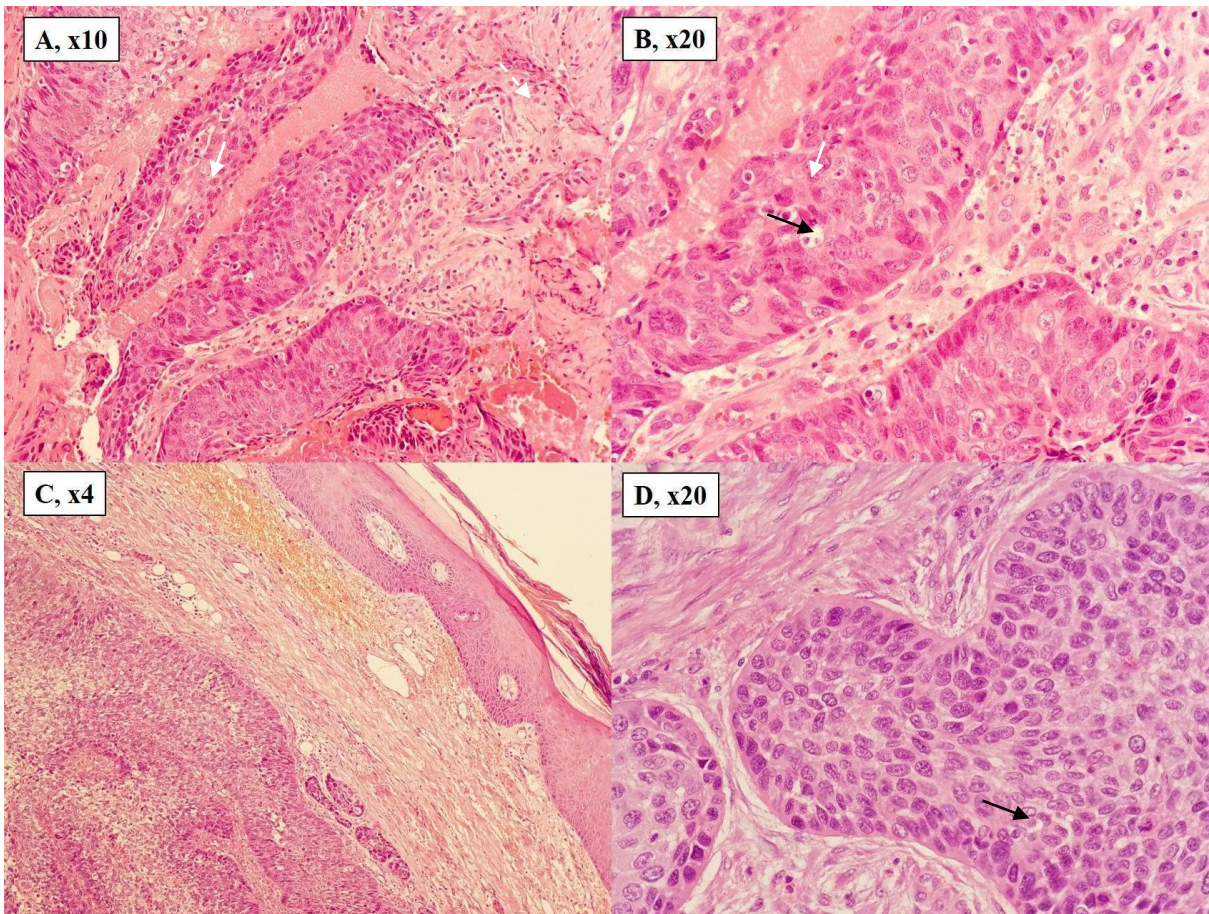


Figure 2: Microscopic appearance of the tumour of the tonsil (A&B) and left middle finger (C&D) showing malignant squamous cells arranged in cords and sheets, accompanied with desmoplastic stromal reaction. The malignant cells display pleomorphic and hyperchromatic nuclei with high nucleo-cytoplasmic ratio with no keratinisation and frequent mitoses. The malignant cells were arranged in a lobular configuration with small cystic spaces containing mucin seen (black arrow).

DISCUSSION

Wain et al was the first to describe BSCC occurring in the tongue, hypopharynx and larynx (3). BSCC was believed to arise from multipotent primitive cells that reside in the basal layer of the surface epithelium. The histopathological hallmark was the basaloid pattern, which consists of crowded malignant cells in lobular arrangement with small cystic spaces containing mucinous material (4). The poor outcomes in cases of BSCC occurring in the tonsil was attributed by advanced stage at presentation (1,2), failure of initial management (2) and distant metastasis(5) even years after successful treatment, as seen in our case.

Acral metastasis (metastasis in the hand or foot) is very rare and accounted only 0.1% incidence with a median survival of 5 to 6 months (6). The predominant primaries from which this metastasis occurred were the lung (47%), kidney (13%) and breast (12%) (6,7). To the best of our knowledge, there are no reports on acral metastasis from basaloid squamous cell carcinoma of the tonsil. Our Pubmed search from the years 2004 to 2020 using keyword acral metastasis, tonsil cancer and finger metastasis revealed no published literature similar to this case.

Although BSCC carries better prognosis in terms of disease-specific survival in oropharynx (1), it still has high propensity for distant metastases (6). Metastasis in head and neck cancer may occur from detachment of cells from tumour tissue, regulation of cell motility, invasion, proliferation, and evasion through the lymphovascular channels. However, the mechanism of acral metastasis in head and neck cancer is unclear (8). Despite absence of high nodal burden (N2/3) and advanced tumour stages which are the important predictors for both early and intermediate time of metastasis (9), our case presented with late distant metastasis (> 2 years post treatment). This could be reflective of their inherent biological characteristics such as the presence of endo-vascular emboli in the primary tumour and lymphovascular invasion in BSCC.

Therefore, comprehensive metastatic work-up and aggressive intervention should be performed in all cases of BSCC (5).

CONCLUSION

Acral metastasis is a rare occurrence in squamous cell carcinoma of the tonsil. We recommend vigilant surveillance in BSCC as risk of distant metastasis is high even after a successful primary treatment.

Conflict of interest

No conflict of interest was declared by the authors.

REFERENCES

1. Fritsch VA, Lentsch EJ. Basaloid Squamous Cell Carcinoma of the Head and Neck: Location Means Everything. *J Surg Oncol.* 2014;109 :616–622.
2. Linton OR, Moore MG, Brigance JS, Gordon CA, Summerlin DJ, McDonald MW. Prognostic Significance of Basaloid Squamous Cell Carcinoma in Head and Neck Cancer. *JAMA Otolaryngol Head Neck Surg.* 2013;139:1306-1311.
3. Wain SL, Kier R, Vollmer RT, Bossen EH. Basaloid-squamous carcinoma of the tongue, hypopharynx, and larynx: report of 10 cases. *Hum Pathol.* 1986;17:1158–66.
4. Ereño C, Gaafar A, Garmendia M, Etxezarraga C, Bilbao FJ, López JI. Basaloid squamous cell carcinoma of the head and neck: a clinicopathological and follow-up study of 40 cases and review of the literature. *Head Neck Pathol.* 2008;2:83-91.
5. Soriano E, Faure C, Lantuejoul S, Reyt E, Bolla M, Brambilla E, Righini CA. Course and prognosis of basaloid squamous cell carcinoma of the head and neck: a case-control study of 62 patients. *Eur J Cancer.* 2008;44:244-50.
6. Kerin R. The hand in metastatic disease. *J Hand Surg.* 1987; 12: 77-83
7. Puhaindran ME, Athanasian EA. Malignant and Metastatic Tumors of the Hand. *J Hand Surg Am.* 2010; 35:1895-900
8. Senapati S, Mohanty S, Samanta D, Avinash A. Acral metastasis in carcinoma of buccal mucosa: An unusual presentation. *Onc J India.* 2018;2:35.
9. Agarwal J, Krishnatry R, Gupta T, Murthy V, Ghosh-Laskar S, Budrukkar A, Chaturvedi P, Nair S, Nair D, Kumar P, Joshi A. Factors predicting 'time to distant metastasis' in radically treated head and neck cancer. *Indian J Cancer.* 2014;51:231.