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Case Report
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Treatment of Hidradenocarcinoma of the Scalp with Wide Local Excision: Case Report of a Rare and Malignant Tumor

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Abstract

Hidradenocarcinoma is a rare malignant cutaneous adnexal tumor associated with a high propensity for local recurrence and subclinical metastasis, thus necessitating timely identification and treatment. This case report is being presented to highlight the relatively benign presentation of this disease, as well as an approach for treatment. This patient was a 50 year old Asian male with no past medical history with a progressively enlarging raised scalp lesion. In office excision was performed, with following pathology revealing hidradenocarcinoma. The patient subsequently underwent wide local excision with sentinel lymph node biopsy. The margins were widely negative and the sentinel node was also negative. Follow up CT has demonstrated no distant metastases.

Introduction

Hidradenocarcinoma is a rare malignant cutaneous adnexal tumor associated with a high propensity for local recurrence and subclinical metastasis, thus necessitating timely identification and treatment. Very little has been published in regards to the proper management of this cancer. Here, we present a case of this highly aggressive tumor with a rather benign presentation, as well as an approach to treatment.

Case Presentation

A 50 year old male of Asian descent with an unremarkable past medical history presented to our outpatient community clinic with complaint of a raised scalp lesion of 8 months duration. The patient reported that the lesion progressively enlarged for the first 4 months but then stabilized in size thereafter. The lesion was asymptomatic with no associated bleeding, ulceration, discharge, or pruritis. He did not recall trauma or an inciting event. Initial examination revealed a round 1.5 cm diameter, well circumcised, immobile, soft mass on the right temporo-parietal scalp. The lesion was minimally tender to deep palpation. There were no overlying skin changes or discharge. No regional lymphadenopathy was noted. A presumptive diagnosis of sebaceous or pilar cyst was established and general surgery was consulted. After obtaining informed consent, the mass was excised in the outpatient setting under local anesthesia. It was noted that the mass was quite adherent to the surrounding tissues which necessitated removal in a piecemeal fashion.

Histopathologic examination demonstrated a poorly-differentiated carcinoma extending beyond the resected margins. The tumor was characterized by nests of epithelial cells with variable cytoplasm ranging from clear to eosinophilic with squamous differentiation. Associated with the tumor was a dense hyalinized stroma, as well as round spaces suggestive of duct lumens. Immunohistochemistry showed positive staining for cytokeratin 5/6, cytokeratin 7, p63, carcinoembryonic antigen, and epithelial membrane antigen.

These findings were consistent with malignant cutaneous adnexal carcinoma, most likely hidradenocarcinoma. The case was reviewed at a multidisciplinary tumor board. The diagnosis and treatment options were discussed with the patient, and informed consent was obtained for planned re-excision and sentinel lymph node biopsy.

Lymphoscintigraphy was used intraoperatively to identify sentinel lymph nodes along the right neck. The area was further explored using a handheld Geiger counter and 3 small blue sentinel lymph nodes along the posterior border of the right sternocleidomastoid muscle were resected and sent for pathology. Wide local excision around the previous incision was performed with 2

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cm margins down to the bregma of the scalp. Total diameter of the excision measured 5.5 cm. A full thickness skin graft with an area of 16 cm^2 was harvested from tissue just inferior to the right clavicle and secured to the scalp. The patient tolerated the procedure well and there were no complications. Histopathologic exam of the tissue margins demonstrated no evidence of tumor and sentinel lymph nodes that were negative for metastasis. Post-operative full body computed tomography revealed no evidence of visceral organ involvement.

The patient has been followed postoperatively on a monthly basis to evaluate graft healing and to assess for signs of tumor recurrence. At 6 months postoperatively, the graft is continuing to heal without complication and there is no suspicion for tumor recurrence.

Discussion

Hidradenocarcinoma is a rare malignant cutaneous adnexal tumor associated with a high propensity for local recurrence and subclinical metastasis, thus necessitating timely identification and treatment. Hidradenocarcinoma poses a diagnostic challenge given the lack of distinguishing characteristics and indolent nature of presentation [1,2]. Previous reports suggest that trauma and/or instrumentation of the lesion may precipitate localized growth [3]. Therefore if the lesion is initially biopsied or excised for diagnostic purposes, definitive treatment should be pursued expeditiously to reduce the possibility of recurrence or metastasis. In the present case, the 1.5 cm diameter tumor was initially mistaken for a sebaceous cyst and subsequently excised as such. Fortunately, there was no evidence of recurrence or growth of the lesion when the patient presented for repeat excision 1 month later.

There is no consensus on hidradenocarcinoma management; however surgery in the form of wide local excision is the most widely reported. More recently Mohs micrographic surgery-with or without wide local excision-has also been utilized, particularly with cases involving the scalp [4]. If wide local excision is performed, at least 3 cm margins should be obtained [1]. In our case, tumor location and patient anatomy dictated the use of 2 cm margins. The tendency for these tumors to metastasize *via* regional lymphatics has led to investigation into the utility of sentinel lymph node biopsy in the management of hidradenocarcinoma [5]. On physical exam, our patient did not exhibit regional lymphadenopathy. Despite this, we elected to perform sentinel lymph node mapping and biopsy to assess for subclinical lymphatic metastasis. Despite aggressive treatment, local recurrence has been reported to occur in up to 50% of cases and metastasis rates may be as high as 60%. The 5-year survival rate has been reported at 30% [2]. Our patient is recurrence-free at 6 months, but will need continued close surveillance given the high recurrence and mortality rate of this aggressive cancer.

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