

BRIEF ARTICLE

Squamous Cell Carcinoma Arising in a Nevus Sebaceous in a 10-Year-Old Male

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ABSTRACT

The patient is a 10-year-old male who presented to a dermatologist regarding a bleeding plaque on the right scalp. The initial pathology report demonstrated an atypical endophytic squamous proliferation with an infiltrative pattern, raising concern for squamous cell carcinoma versus pseudoepitheliomatous hyperplasia. Physical exam showed a painless 4.4 x 1.2 cm elliptical, rough, orange-to-pink plaque with waxy superficial scale on the left forehead. Wide local excision was performed, and pathology confirmed no residual carcinoma. Squamous cell carcinoma arising in a nevus sebaceous in a pediatric patient is exceedingly rare, but as demonstrated by this case, does occur, emphasizing the need for improved guidelines for management to optimize treatment in the pediatric population.

INTRODUCTION

Nevus sebaceous lesions are typically present at birth and commonly occur on the scalp. While malignant carcinomas may arise within these lesions, basal cell carcinomas are the most common malignant lesions to occur, and it is rare for squamous cell carcinomas to develop. Here, we present the case of a 10-year-old male patient who was diagnosed with a squamous cell carcinoma within a nevus sebaceous lesion on the scalp and subsequently underwent treatment via wide local excision.

CASE REPORT

The patient is a 10-year-old male who presented to a pediatric dermatologist for a second opinion regarding a recently biopsied hemorrhagic, crusted plaque on the scalp. Referral notes indicated a rapidly-growing erythematous nodule on the left side of patient's scalp that had been present for the prior 6-8 weeks. It had developed overlying a preexisting epidermal nevus, more precisely, a nevus sebaceous. The patient and the patient's family denied any trauma to the lesion, as the patient did not pick at the area or disturb it with a hairbrush. Prior to initial evaluation, the lesion had an exterior scab without evidence of active bleeding at the site. The patient denied tenderness and pruritis around the plaque. The initial biopsy demonstrated an atypical endophytic squamous proliferation with an infiltrative

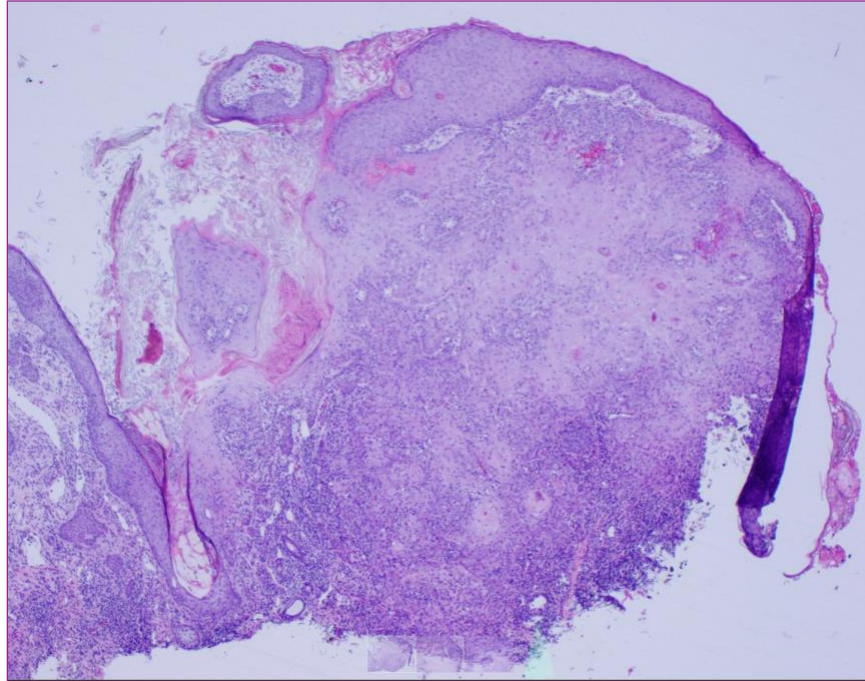


Figure 1. Histopathological and immunohistochemical findings demonstrating an atypical endophytic squamous proliferation with an infiltrative pattern consistent with moderately-differentiated squamous cell carcinoma (4x).

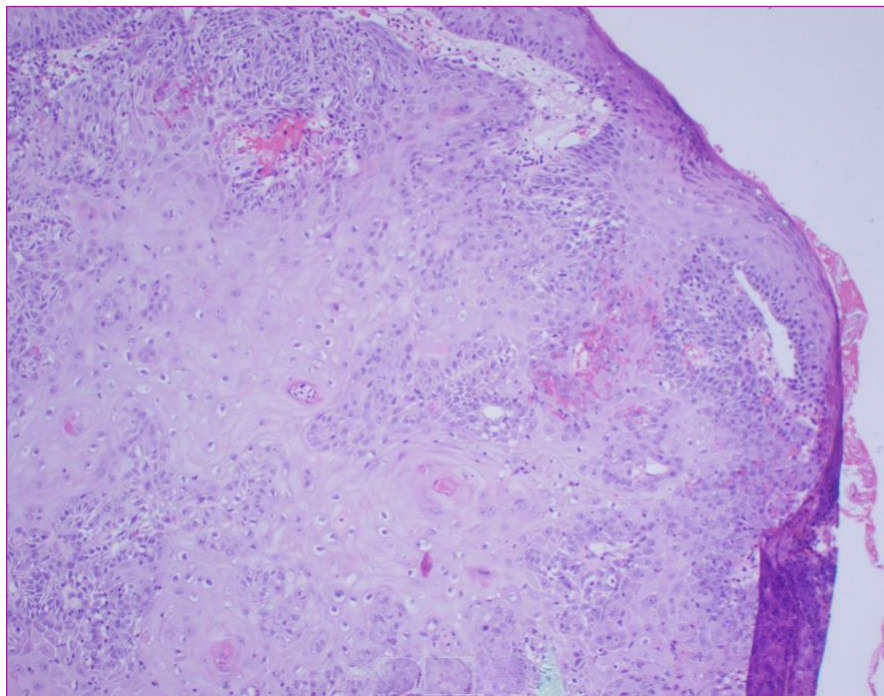


Figure 2. Histopathological and immunohistochemical findings demonstrating an atypical endophytic squamous proliferation with an infiltrative pattern consistent with moderately-differentiated squamous cell carcinoma (10x).

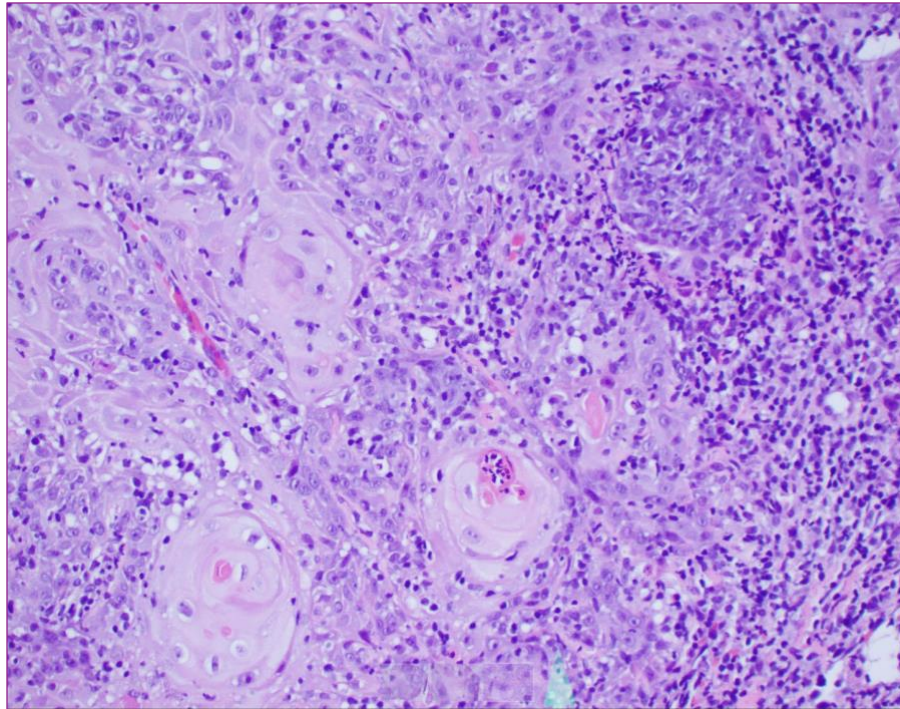


Figure 3. Histopathological and immunohistochemical findings demonstrating an atypical endophytic squamous proliferation with an infiltrative pattern consistent with moderately-differentiated squamous cell carcinoma (20x).



Figure 4. Clinical presentation of the patient's left scalp lesion; squamous cell carcinoma arising within a nevus sebaceous on the left scalp.

pattern, initially signed out as a moderately-differentiated squamous cell carcinoma (**Figures 1-3**). Additional dermatopathologist opinion raised concern for squamous cell carcinoma, but pseudoepitheliomatous hyperplasia was also considered as a histologic differential diagnosis.

On physical exam, a 4.4 x 1.2 cm elliptical, rough, orange-to-pink plaque with waxy superficial scale was evident on the left forehead (**Figure 4**); there was no induration or nodularity underlying or surrounding the plaque. No cervical, occipital, supraclavicular, or axillary lymphadenopathy was appreciated. The treatment options considered included Mohs surgery versus wide local excision. Given the patient's young age, lack of underlying nodularity, and well-defined nature of the nevus sebaceus, the patient and family opted for wide local excision. Excision pathology demonstrated a nevus sebaceous with no residual carcinoma (**Figure 5**).

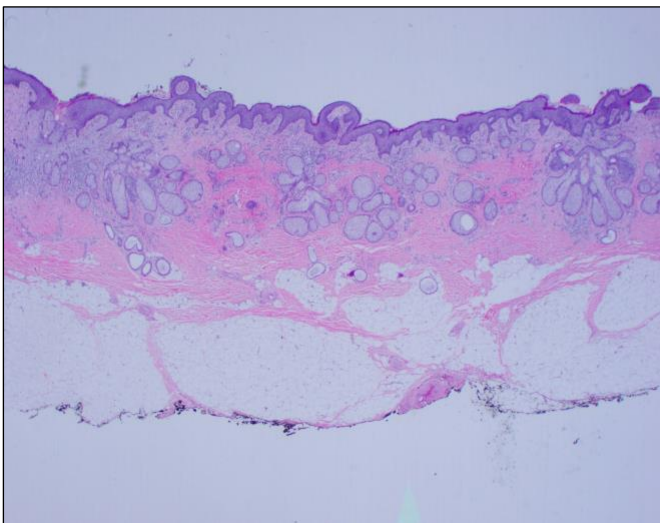


Figure 5. Histopathological and immunohistochemical findings of nevus sebaceous negative for residual carcinoma (2x).

DISCUSSION

Nevus sebaceous lesions are usually present at birth, with the most common location being the scalp. While rare, the phenomenon of keratinocyte carcinoma arising in NS has been reported in the literature.^{1,2} While not uncommon to develop associated benign tumors (trichoblastoma and syringocystadenoma papilliferum), it is rare for squamous cell carcinoma (SCC) to arise within a nevus sebaceus.³⁻⁵ Basal cell carcinoma is the most common malignant tumor associated with such lesions.⁶ When diagnosing a squamous cell carcinoma in a pediatric patient, clinical history and low threshold to biopsy changing papules may aid in efficient diagnosis and treatment initiation.

CONCLUSION

Given the rarity of this occurrence in the pediatric population, well-defined guidance regarding management and prognosis is lacking. Thus, shared decision making and close follow-up are critical so that patients and their families can be counseled appropriately and treated optimally to achieve the most positive outcome.

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