Eccrine carcinomas are considered a subcategory of adnexal malignancies that originate from the eccrine glands. These carcinomas comprise less than 0.01% of cutaneous tumors. Squamoid eccrine ductal carcinoma (SEDC) was initially described in 1997 for lesions demonstrating eccrine ductal differentiation as well as a prominent squamous component. SEDC is a rare tumor and is commonly misdiagnosed as squamous cell carcinoma (SCC). To better characterize this entity, I provide a comprehensive review of the available literature.

SEDC: ETIOLOGY, RISK FACTORS, AND TREATMENT

SEDC most commonly presents in the seventh or eighth decade as a slow-growing nodule or plaque with ulceration or crusting and most frequently involves sun-exposed areas. The clinical presentation of these tumors is nonspecific, and lesions have often been present for several years before biopsy. Potential risk factors associated with SEDC include a history of immunosuppression, especially organ transplantation and leukemia.

Histologically, these tumors have a biphasic appearance with squamous features in the superficial portion and ductal features with desmoplastic stroma and cords of infiltrating tumor cells in the deeper portion. Cytologic atypia, numerous mitoses, and in some cases, perineural invasion is detected in the deeper portions. The differential diagnosis for SEDC is broad and includes squamous cell carcinoma, microcystic adnexal carcinoma (MAC), cutaneous metastasis with squamous features, porocarcinoma with squamous differentiation, and syringoid eccrine carcinoma. Treatment options include Mohs micrographic surgery and wide local excision.

The understanding of SEDC is evolving with the addition of new cases to the literature, however, these lesions remain a diagnostic challenge. Having a high index of suspicion for SEDC and knowing how to approach this entity also poses a unique clinical challenge for physicians. There is a significant diagnostic dilemma especially since this entity has previously been considered a variant of SCC or MAC. When approaching potential cases of SEDC, it is crucial to obtain a sufficient biopsy to appreciate both the superficial squamoid and the deeper eccrine component of the tumor.

IS IT SEDC OR SCC? MAKING A DIFFERENTIAL DIAGNOSIS

Furthermore, it is important to be aware of the key differences in clinical behavior between SEDC and SCC. Local recurrence rates for SEDC are reported to be in the range of 25% to 70%, compared to local recurrence rates of 3% to 19% for SCC (dependent on the location and method of treatment). Rates of metastases for SEDC may be as high as 50%, while the rate of metastasis for SCC is typically less than 1%. When SEDC tumors do metastasize, they tend to move to regional lymph nodes and may progress to involve the lungs, liver, bone, and brain. Regarding management, there have been reports of successful removal of lesions with Mohs micrographic surgery or with wide local excision.

In conclusion, SEDC is a rare and potentially aggressive tumor. Dermatologists and dermatologic surgeons should be aware of this diagnosis, particularly as it is often misdiagnosed as SCC on initial diagnosis. Furthermore, we draw attention to pitfalls and offer suggestions on how to obtain a more definitive histologic diagnosis. With increased awareness and recognition of SEDC, these tumors are more likely to be detected and will lead to additional discoveries and better clinical characterization of this entity.
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The Bottom Line from the CSF Founder

"Dr. Kamath presents a case that is of importance for every dermatologist who is presented with an unknown lesion on the ocular area. While many of these will ultimately be biopsied and treated by our oculoplastic or plastic surgeon colleagues, Mohs is appropriate for treatment, and the differential diagnosis and follow-up is often managed or inclusive of dermatologists. Additionally, with the increased numbers of individuals currently on immunosuppressants, it is likely that this rare tumor will be more prevalent in the future. Lastly, the risk of misdiagnosis of this as a squamous cell carcinoma (SCC) leads to concerns that referrals to dermatology for the treatment of presumed SCC (with or without pathologic interpretation) could be a spurious diagnosis."

Joel Schlessinger MD, Dermatologist and Cosmetic Surgeon, in Omaha, NE.

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