Primary Basal Cell Carcinoma of the Caruncle

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We describe a 24-year-old man with primary basal cell carcinoma of the caruncle. Clinically the lesion was a whitish, slightly prominent nodule surrounded by fine vessels. No associated cutaneous lesion and no connection to the surrounding skin was present. The lesion was subsequently completely excised, and histopathological examination revealed a solid-cystic basal cell carcinoma of the caruncle. Primary basal cell carcinoma of the caruncle is an extremely rare but distinct entity. To our knowledge, review of the literature has not demonstrated a previous photographically documented case of primary basal cell carcinoma of the caruncle.


Basal cell carcinoma is the most common human malignant neoplasm, and accounts for nearly 80% of all nonmelanoma skin cancers. It is a slow-growing, locally invasive epidermal tumor that rarely metastasizes. Basal cell carcinomas have the potential to cause death by invasion of the central nervous system. Most basal cell carcinomas are skin cancers and only a few basal cell carcinomas of the conjunctiva have been described, with the overwhelming majority of these resulting from the local spread of adjacent eyelid neoplasms. Primary basal cell carcinoma of the conjunctiva including the caruncle is extremely rare.

REPORT OF A CASE

A 24-year-old man was seen by an ophthalmologist because of a slowly enlarging lesion on the caruncle of his left eye. The patient had no other prior cutaneous or visceral malignant neoplasms and showed no signs of skin, skeletal, endocrine, or ophthalmic anomalies. There was no family history of skin cancer. For the past 8 years he had worked outdoors for a road construction company in Germany. The lesion was a slightly prominent whitish nodule with a reddish center and fine vessels surrounded the lesion with minimal surrounding hyperemia (Figure 1). The lesion measured 3×5 mm with no connection to the surrounding skin. The lesion had been noticed 3 months previously as a painless swelling. The lesion was excised under local anesthesia and confirmed histologically as a basal cell carcinoma of the solid-cystic type. Nonkeratinized stratified squamous epithelium was found overlying solid lobules of basaloïd cells with islands of cystic clusters (Figure 2). The nonkeratinized stratified squamous epithelium showed central ulceration with overlying debris, granulocytes, and fibrin. The tumor cells exhibited small round to ovoid hyperchromatic nuclei. The nuclei appeared relatively isomorphic. Mild mitotic activity was present. There was a nuclear palisading at the periphery of the solid tumor.

Follow-up examination results have showed no evidence of recurrence 14 months after surgical excision.

COMMENT

The exact origin of basal cell carcinoma is still controversial. Based solely on its microscopic appearance, basal cell carcinoma could arise from the basal cells of the epidermis or infundibular cells of the outer root sheath of the hair follicle. The presence of pilar, sebaceous, apocrine, and...
The surface of the caruncle is the only part of the conjunctiva containing adnexal elements, 2 and the findings in our case support this hypothesis. The caruncle is the only part of the conjunctiva containing adnexal elements. The surface of the caruncle consists of a nonkeratinized stratified squamous epithelium overlying a stroma that contains sebaceous glands, hair follicles, and, in some patients, lacrimal and sweat gland elements. 3

Approximately 95% of all basal cell carcinomas are found in people between 40 and 79 years of age. 1 All well-documented conjunctival basal cell carcinomas described in the ophthalmic literature occurred in elderly patients (>65 years). 2,4,5 Primary basal cell carcinoma of the conjunctiva or caruncle has not been described before in such a young patient.

In conclusion, primary basal cell carcinoma of the caruncle, including the conjunctiva, is a very rare entity. Patients with basal cell carcinoma should have follow-up examinations to detect the development of actinically related or secondary tumors.

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REFERENCES