

Pigmented squamous cell carcinoma of the limbus area: A rare case

Dear Editor,

The incidence of squamous cell carcinoma (SCC) is 0.02 to 3.5 per 100,000.¹ Squamous cell carcinoma may rarely be pigmented and known as pigmented squamous cell carcinoma (PSCC).² The incidence of PSCC is very low and there are less than 30 reported cases in the literature. The majority of them have been reported to occur in skin-mucosal junctions.¹ The purpose of this presentation is to describe the clinical characteristics, treatment and histopathologic findings of a rare variant case of conjunctiva-cornea epithelial neoplasia known as PSCC in the limbal area of the right eye of a 50-year-old Iranian man with spread onto the cornea. By history, the tumor had slowly grown during the last year. Differential diagnosis included PSCC, malignant melanoma and pigmented papilloma. On slit-lamp examination the mass size measured approximately 7 × 7 × 3 mm and it was soft, irregular and raised above the surrounding tissue. Laboratory examination included complete blood count and human immune deficiency virus (HIV) test were normal.

Treatment included complete excision and postoperative 0.02% mitomycin C,³ four drops per day for two weeks. Microscopic view of the tumor revealed lobules of neoplastic cells with large irregular nuclei and eosinophilic cytoplasm containing much melanin pigment [Fig. 1]. Follow-up of greater than 14 months did not reveal any complications or signs of tumor recurrence.

The tumor size in our study was relatively large. Shields *et al.*⁴ reported a similar case as ours. Therefore, these relatively large-sized tumors may be related to well differentiation of tumor. Squamous cell carcinoma occurs in sun-damaged ocular surface, usually at the limbal interpalpebral zone in elderly men as in this case. However, our patient was middle-aged. Since HIV infection increases the risk of conjunctival SCC,⁵ an

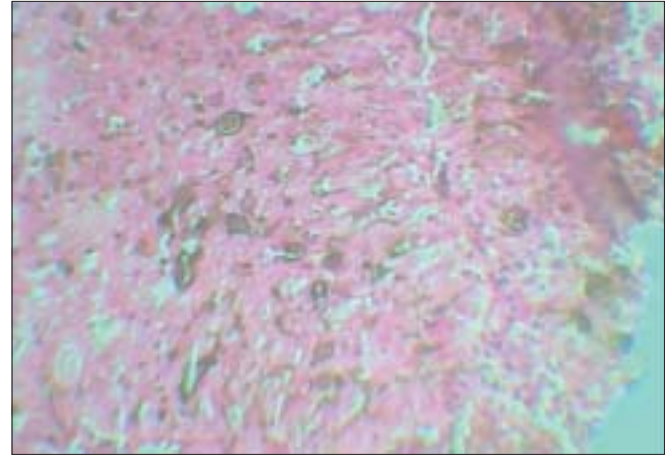


Figure 1: H and E stain, Mag 100x, pigmented squamous cell carcinoma

HIV test should be performed. Our patient was HIV-negative. Jauregui *et al.*⁶ performed a light microscopic, histochemical and ultrastructural study on tissue obtained from a PSCC of the cornea and conjunctiva. The study revealed melanin granules, which accounted for the pigmentation of the neoplasm, present in variable numbers in neoplastic squamous cells. However, in our case, only light microscopy was performed. In conclusion, limbal area SCC may rarely be pigmented and it should be included in the differential diagnosis of pigmented tumors.

Acknowledgment

The author would like to thank the Dr. Ramin Ebrahimi APCP for his help with histopathologic data.

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