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SPINDLE CELL CARCINOMA OF THE CONJUNCTIVA: A CASE REPORT

Ophthalmology

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ABSTRACT

An 65-year-old male presented with painless bulging conjunctival lesion. Clinical history, diagnostic imaging studies, and histopathologic sections were evaluated. The patient clinically displayed an vascularized conjunctival lesion located at the temporal limbus with extension onto cornea. His visual acuity was counting fingers at 1m. The patient underwent a total excision of the lesion including conjunctival and corneal parts. Histopathologic evaluation revealed spindle cell carcinoma which involves the whole conjunctival squamous epithelium with significant polarity loss, nuclear enlargement with hyperchromasia and pleomorphism, and mitotic activity. Diagnosis of spindle cell carcinoma is challenging because of overlapping histopathological features with other spindle cell tumors. The detailed pathologic examination is very important for the decision of proper treatment.

KEYWORDS

Conjunctiva, spindle cell carcinoma, squamous epithelium

INTRODUCTION

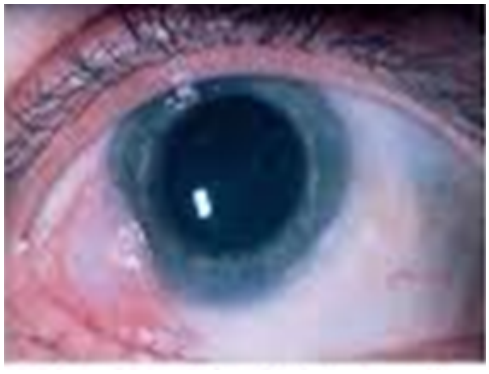
Spindle cell carcinoma is a rare and unusual biphasic malignant tumor, which involves sarcomatoid proliferation of pleomorphic spindle cells and squamous cell carcinoma (SCC). Squamous cell carcinoma with the spindle cell component, is an uncommon phenomenon and a rare type of malignant tumor.Spindle cell carcinoma is a poorly differentiated variant of Squamous cell carcinoma(SCC) that rarely occurs in the conjunctiva.

We aim to present a case of corneo-conjunctival spindle cell carcinoma to emphasize the importance of detailed pathologic examination to differentiate the cell type for timely intervention and adjuvant therapy. Informed consent was obtained from the patient.

CASE REPORT

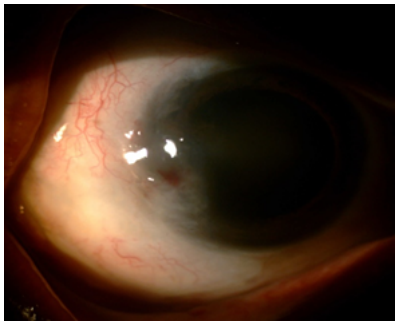
An 65-year-old male came to our clinic for the first time with dimunition of vision in the both eyes along with a gradually progressive painless ocular surface mass in right eye since 6 months.No history of prior surgery or trauma or foreign body reported.Best corrected visual acuity was counting fingers at 1 m in both the eyes.Intraocular pressure was 14 mmHg in both the eyes.Anterior segment examination revealed a large vascularized lesion located at temporal limbus with a corneal extension upto 1-2 mm. Fundoscopic examination of both eyes was normal.Both eyes nuclear sclerosis grade II-III was present.

Preoperative slit lamp photograph showing vascularized lesion located at temporal region with extension onto the cornea



The patient underwent an excisional biopsy of the lesion followed by amniotic membrane transplantation over the tumor bed using tisseel glue.

Postoperative slit lamp photograph showing amniotic membrane transplant covering bare sclera after excision of lesion



Histopathologic evaluation revealed in situ carcinoma which holds the whole conjunctival squamous epithelium with significant polarity loss, nuclear enlargement with hyperchromasia and pleomorphism, and mitotic activity. The stroma was rich in atypical cells forming nests of neoplastic spindle cells with multiple mitosis(8-9/10 HPF), with hyperchromatic nuclei and pleomorphism mixed with inflammatory cells. In immunohistochemical staining, atypical stromal cells were stained positive with vimentin, pancytokeratin (cytokeratin AE1/AE3), epithelial membrane antigen (EMA), smooth muscle actin (SMA), CD99, p63, and calponin and were stained negative with caldesmon and MyoD1. Positivity of EMA and pancytokeratin revealed the Because of the malignant potential of the lesion, an orbital magnetic resonance imaging was taken, which showed no posterior and orbital extension.

DISCUSSION

Squamous cell carcinoma(SCC) of the conjunctiva is a rare malignancy; however, it is reported to be the most common malignant tumor of the ocular surface. Squamous cell carcinoma(SCC) has the potential to penetrate the corneoscleral lamella into the anterior chamber and can breach the orbital septum to invade the soft tissues of the orbit, sinuses, and brain. These tumors may metastasize via lymphatics or blood.Surgical excision with or without cryotherapy and radiotherapy remains the widely accepted treatment for SCC of the conjunctiva.

Spindle cell carcinoma of the conjunctiva is relatively rare, with only a few cases reported in literature.Spindle cell carcinoma is a poorly differentiated variant of Squamous cell carcinoma which is considered to be more aggressive and can also affect the progress and outcome of the disease.

CONCLUSION

Because of their possible aggressive behavior, conjunctival malignancies are known to be sight- and life-threatening. Histopathologic examination is vital for prognostication and starting adjuvant therapy if required.

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