CASE REPORT OF SPINDLE CELL CARCINOMA OF THE CONJUNCTIVA- A RARE TUMOUR

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ABSTRACT

Aim: To present a case of spindle cell carcinoma of the conjunctiva to emphasize the importance of detailed pathological examination to differentiate the cell type for the prognosis and the decision of proper treatment.

Case Report: A 55 year old male patient presented at civil hospital, Ahmedabad with complain of decreased vision in the left eye. There was no history of trauma and pain. On examination, a pedunculated lesion over the conjunctiva with no ulceration, which grew slowly over 4 months. Histopathological examination showshistology of poorly differentiated squamous cell carcinoma of the conjunctiva with sarcomatoid differentiation (spindle cell variant of squamous cell carcinoma) which was confirmed on subsequent immunohistochemical examination.

Discussion: Squamous cell carcinoma is the most common malignant tumor of the ocular surface8. Spindle cell carcinoma is a poorly differentiated variant of squamous cell carcinoma that rarely occurs in the conjunctiva 3,4,5,6,7. Cervantes et al. reported a total 287 cases of squamous cell carcinoma of conjunctiva, in which only two cases were documented as spindle cell carcinoma11. Surgical excision with or without cryotherapy and radiotherapy remains widely accepted treatment for squamous cell carcinoma of the conjunctiva9,10.

Conclusion: Because of their possible aggressive behaviour, spindle cell carcinoma of the conjunctiva is known to be sight- and life threatening. It is important to differentiate this variety of squamous cell carcinoma from mimics specially sarcomas with spindle cell morphology and spindle cell predominant malignant melanoma. Hence detailed pathological examination is very important to differentiate the cell type for the prognosis and the decision of proper treatment.

Key Words: Conjunctiva, Spindle cell carcinoma, Immunohistochemical examination
On Gross Examination
Received specimen of eyeball with growth on conjunctiva measuring: 1.3x1 cm². Eyeball measuring: 2.3x2x2 cm². On cut surface, clear vitreous is identified. Optic nerve is identified.

On Microscopic Examination
Section shows histology of poorly differentiated squamous cell carcinoma of conjunctiva- a spindle cell variant. Tumor cells have a spindle–shaped configuration, oval vesicular nuclei, large basophilic or eosinophilic nuclei, pink homogeneous cytoplasm and mitotic figures. The cells are arranged in fascicles with stromal desmoplasia. Tumor involved whole conjunctival epithelium. Optic nerve is free from tumour.

Immunohistochemical Examination:
Immunohistochemical examination was done. The tumor cells show reactivity for cytokeratin AE1, cytokeratin 5/6 (CK5/6), and Vimentin.

S-100 protein and human melanoma black 45 (HMB-45) were negative which ruled out amelanotic spindle cell melanoma.

DISCUSSION
Squamous cell carcinoma is the most common malignant tumor of the ocular surface. Squamous cell carcinoma has the potential to penetrate the corneoscleral lamella into the anterior chamber and can breach the orbital septum to invade the soft tissue of the orbit, sinuses, and brain as well as it may metastasize via lymphatics or blood during the disease. Surgical excision with or without cryotherapy and radiotherapy remains the widely accepted treatment for squamous cell carcinoma of the conjunctiva.

Spindle cell carcinoma is a poorly differentiated variant of squamous cell carcinoma that rarely occurs in the conjunctiva. Cervantes et al. reported a total 287 cases of squamous cell carcinoma of the conjunctiva, in which only two cases were documented as spindle cell carcinoma. Spindle cell carcinoma is considered to be more aggressive and can also affect the progress and outcome of the disease. Histopathologically, spindle cell carcinoma of the conjunctiva may be difficult to distinguish from amelanotic melanoma, malignant schwannoma, fibrosarcoma and other spindle cell tumors. Immunohistochemical examination demonstrates the presence of cytokeratin and epithelial membrane antigen (EMA).

CONCLUSION
Because of their possible aggressive behaviour, spindle cell carcinoma of the conjunctiva is known to be sight- and life threatening. It is important to differentiate this variety of squamous cell carcinoma from mimics specially sarcomas with spindle cell morphology and spindle cell predominant malignant melanoma. Hence detailed pathological examination is very important to differentiate the cell type for the prognosis and the decision of proper treatment.

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REFERENCES
Patel et al.: Case report of spindle cell carcinoma of the conjunctiva- A rare tumour

**Figure 1:** Conjunctival epithelium with tumor tissue. (H&E stain, 4x.)

**Figure 2:** Dysplastic epithelial cells with sort fascicle of spindle shaped tumor cells. (H&E stain 10x.)

**Figure 3:** Dyskeratotic tumor cells with keratosis. (H&E stain 10x.)

**Figure 4:** Tumor cells with sarcomatoid differentiation. (H&E stain 10x.)