1. Abstract: Conjunctival Neoplasia

Conjunctival neoplasia refers to a spectrum of benign, premalignant, and malignant tumors arising from the conjunctiva, the membrane covering the sclera and inner eyelids. Although relatively uncommon, these lesions are clinically significant due to their potential to invade surrounding ocular structures, cause visual impairment, and, in some cases, metastasize. The most prevalent types include squamous cell carcinoma (SCC), conjunctival melanoma, and ocular surface squamous neoplasia (OSSN). Risk factors such as ultraviolet (UV) radiation, human papillomavirus (HPV) infection, and immunosuppression are strongly implicated in the pathogenesis of these neoplasms.

Diagnosis is typically based on clinical examination, aided by imaging techniques and confirmed by histopathological analysis following a biopsy. Treatment strategies vary depending on the type and stage of the neoplasm and may involve surgical excision, cryotherapy, topical chemotherapy (e.g., mitomycin C or interferon), or radiation therapy. Given the risk of recurrence and metastasis, especially with malignant lesions, long-term follow-up is essential.

Effective management of conjunctival neoplasia requires a multidisciplinary approach to optimize outcomes, preserving both the function and cosmetic appearance of the eye while minimizing the risk of disease progression.

Keywords: conjunctival neoplasia, squamous cell carcinoma, conjunctival melanoma, ocular surface squamous neoplasia, OSSN, UV radiation, HPV, biopsy, histopathology, surgical excision, cryotherapy, topical chemotherapy, eye tumors.

2. Abstract: Crystalline Keratopathy

Crystalline keratopathy is an uncommon corneal disorder marked by the deposition of needle-like, refractile crystalline material within the corneal stroma. It can result from a variety of etiologies, including infectious agents such as *Streptococcus viridans*, *Candida albicans*, and atypical *Mycobacterium*, as well as non-infectious causes like paraproteinemias (e.g., monoclonal gammopathy of undetermined significance, multiple myeloma), hyperlipidemia, or chronic use of topical corticosteroids. Clinically, patients may present with decreased visual acuity, photophobia, and the characteristic appearance of corneal crystals, detectable through slit-lamp biomicroscopy.

The diagnosis is based on clinical examination, supplemented by microbiological analysis for infectious causes and laboratory tests such as serum protein electrophoresis to detect underlying systemic conditions. Treatment varies depending on the cause: infectious crystalline keratopathy requires targeted antimicrobial or antifungal therapy, whereas non-infectious cases may be managed by addressing the systemic condition. In severe or refractory cases, corneal transplantation may be indicated to restore vision and prevent complications.

Due to the heterogeneous nature of crystalline keratopathy, early diagnosis and a multidisciplinary approach are critical for effective management and to prevent vision-threatening outcomes.

Keywords: crystalline keratopathy, corneal crystals, infectious keratopathy, paraproteinemia, multiple myeloma, hyperlipidemia, corneal transplantation.

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