

IMPRESSION CYTOLOGY: DIAGNOSTIC POSSIBILITIES IN OPHTHALMOLOGY

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Purpose: Identify opportunities impression cytology in the assessment of morphological and functional changes of the ocular surface in various diseases. Methods: Method impression cytology (IC) used to diagnostic inflammatory process and evaluate effectiveness of the treatment (n=182), estimate the regeneration process in inflammatory (n=182) and dystrophic diseases (n=64) of the cornea, diagnostic of diseases accompanied abnormal proliferation of the epithelium of the ocular surface (n=14). Corneal IC was performed using cellulose acetate discs with a diameter of 13 mm and a pore size of 0.44 μm . Morphometry was performed using by Leica Application Suite software. Results: IC reveals morphological changes of corneal epithelium in ulcerative inflammatory zone and at the periphery in the diagnosis of inflammatory process. Minimally invasive techniques and its information allow using it in order to determine the dynamics of the inflammatory process, evaluating the effectiveness of the treatment. The possibility of obtaining cellular material around the pathological zone has allowed to evaluate the reparative ability of the corneal epithelium and to predict the duration and nature of the wound. IC makes it possible to evaluate the nature of morphological and functional changes in cells, both in the area of tumors and around it, and to make a choice of optimal treatment of the ocular surface squamous neoplasia. Conclusion: IC may be used to determine the morphological and functional changes of the ocular surface, the stage of inflammation, epithelium repair ability and used to forecast of epithelialization, to evaluate and choose of treatment. Financial Disclosure: No