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DIAGNOSTIC VALUE OF CONJUNCTIVAL IMPRESSIONS (CI) IN GRAFT VERSUS HOST DISEASE (GVHD).

ANGONIN R.(1), DELBOSC B.(2), GENIN P.O.(1), BRION A.(3), CAHN J.Y.(3), CARBILLET J.P.(1), KANTELIP B.(1)
 1Laboratoire d' Anatomie Pathologique, 2Service d' Ophthalmologie
 3Service d'Hématologie CHU J.Minjoz 25030 BESANCON Cedex(FRANCE)

Purpose: CI is a non-traumatic method for analysis of the conjunctival (CJT) epithelium. It allows to obtain abundant material, available for cytological and immunocytochemical (IHC) studies. GVHD is a complication following allogenic bone-marrow-transplantation (ABMT), responsible of CJT injuries. We have studied by CI CJT involvement by GVHD.

Methods: 3 groups of patients were studied by CI at D-15 D8, D15 and D30 : G1 (n=12) ABMT, G2 (n=5) autografted patients, G3 (n=5) control. On each CI, cytological study with count of the monocellular necrosis (MN), and IHC study with antibodies against CD 54 and HLA-DR were performed. An ophthalmologic exam after graft in 8 ABMT and 3 autografted patients shows nonspecific lesions without differences between the 2 groups.

Results: The number of MN is significantly increased in post-ABMT IC of 4/5 patients who developed acute GVHD (in 3 cases few days before the clinical GVHD) but not in ABMT recipients (G1) without GVHD, in G2 and G3. An increased expression of CD 54 and HLA-DR is observed in post-ABMT CI. But, there is no significant difference between ABMT recipients with or without GVHD.

Conclusions: this study confirm that microscopic damages are present in conjunctival epithelium of ABMT recipients with GVHD, in absence of clinical signs of conjunctival GVHD. An increase of MN is correlated with the occurrence of clinical GVHD and has a predictive value (80% sensibility and 100% specificity on cumulated D8 and D15 IC). Hyperexpression of CD54 and HLA-DR by epithelial cells have not predictive value for GVHD occurrence.

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LYMPHATIC VESSELS(LV) OF THE CONJUNCTIVA (C) MAZHADRKOVA I./I., TSCH.BALABANOV/2,**B.ANGUELOV/1/****Chair of Ophthalmology, Medical University-Sofia/1/****Chair of Ophthalmology, Medical University-Pleven/2/****Bulgaria**

PUPPOSE examine the anatomical, physiological and patophysiological data for the LV of the C in the patients with different eye diseases.

METHODS. A method for visualization of LV through subconjunctival injection of lymphotropic dye Patentblau V-2,5%, 0.10 ml. was applied. With the help of operational microscope we observe through video camera and monitor an invasion of the dye in the LV. Some times the dye penetrate blood vessels either. This phenomena was registered on videotape or with camera.

RESULTS. The initial LV of the C were visualized very good, some of them began from the limb, made a circle around the limb and form Liore s ring. The LV drain away through collectiong vessels in the lower-temporal or the upper-nassal angle of the orbita.

The structure of the LV was like a rosary or they were with irregular size. In some cases it can be seen and recorded a self vasomotion of the initial LV. The time from filling the LV with dye to the appearance of a sligh dyeing in the surrounding tissue around the vessel, give information about the permeability of conjunctival LV. The size of the LV can be measured.

CINCLUSION. The initial LV of the C have a different size, from and permeability in the different eys diseases.

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IMMUNOLocalISATION OF CYTOKINES TO HUMAN MAST CELLS IN CONJUNCTIVA FROM NORMAL, SEASONAL ALLERGIC AND ALLERGEN CHALLENGED SUBJECTS.

MACLEOD, J.D.A.,¹ ANDERSON, D.F.,² BADDELEYS, M.,² HOLTGATE, S.T.,³ MCGILL, J.L.,¹ ROCHE, W.R.²

¹ Department of Ophthalmology, Southampton Eye Unit. UK.² Department of Pathology, University of Southampton. UK.³ Department of Immunopharmacology, University of Southampton. UK.

Purpose: The mast cell and its secreted products are central effectors of allergic disease. Recent attention has focused on this cell as a source of multifunctional cytokines and its role in orchestrating the local immune response to allergen. To better understand this process in allergic eye disease we investigated the cytokines IL-4, IL-5, IL-6, IL-8 and TNF α in human conjunctival mast cells.

Methods: Bulbar conjunctival biopsies were taken from 8 subjects with seasonal allergic conjunctivitis (SAC) during the pollen season, 10 subjects with SAC challenged outside of the pollen season and 7 control subjects with no known eye disease. Biopsies were immediately placed in chilled acetone with protease inhibitors and stored for overnight fixation at -20°C. The specimens were then processed into the water soluble resin, glycol methacrylate. Sequential sections of 2 μ m were cut and stained with the monoclonal antibodies mast cell tryptase (AA1) from Dr A.F.Walls, chymase (Chemicon), IL-4 (3H4), IL-4 (4D9), IL-5 (MAB7), IL-6 from C. Heusser (Ciba Gigy), IL-8 from I. Lindley (Sandoz) and TNF- α (Cell Tech). The streptavidin biotin-peroxidase complex detection method was used with aminoethylcarbazole as the chromogen. Using a camera lucida system (Leica UK.) cytokines were co-localised to mast cells in adjacent sections.

Results: IL-4, IL-5, IL-6 and TNF- α were co-localised to mast cells identified by AA1 immunostaining in all groups studied. IL-8 immunoreactivity was noted in the conjunctival epithelium of all groups but mast cells of SAC and challenge patients only (mean 1.4% and 2.0% respectively).

Conclusions: Human conjunctival mast cells contain IL-4, IL-5, IL-6 and TNF- α in allergic and non-allergic conjunctiva. These cytokines may enable the mast cell to orchestrate a local allergic response and play a role beyond the release of rapidly acting mediators.

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ALTERATIONS IN PERICORNEAL VESSELS OF THE CONJUNCTIVA IN PATIENTS WITH GENERAL VASCULAR DISORDERS**STUBIGER N., ERB C., THIEL H.-J.**

University Eye Clinic, Tübingen (Germany)

Purpose: To evaluate the extent of morphological changes of the perilimbal vessels of the conjunctiva in patients with general vascular processes.

Methods: Systemic vessel diseases were investigated in 285 patients (m:f= 145:140; mean age=54 \pm 19 years) with perilimbal vessel alterations. We compared the results of these patients with a control group (n=58; m:f=44:14; mean age=26 \pm 13 years), in which we included only persons without any morphological alteration in the pericorneal vessels.

Results: In the patient group, we found following perilimbal vessel alterations of the conjunctiva: vessel ectasia in 79%, vessel aneurysma in 41%, vessel interruptions in 37% and avascular regions in 12%. The distribution of the 5 most frequent systemic vascular processes was:

	pat.group	control group
peripheral vasc. spasm	57%	19%
headache/migraine	39%	14%
hypertension	33%	3%
vertigo	29%	2%
tinnitus/sudden hearing loss	27%	3%

Conclusion: Alterations in perilimbal vessels seem to be a good marker for systemic vascular disorders. In patients with these findings we recommend an internal medical examination.

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