Dokumenttyp: journal article
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Titel des Beitrags: Differences in basement membrane zone components of normal conjunctiva, conjunctiva in glaucoma and normal skin.
Abstract: To describe the distribution of basement membrane zone (BMZ) components in normal conjunctiva, conjunctiva of patients with glaucoma and normal skin. Thirty-five normal conjunctival biopsies and 16 conjunctival biopsies of patients with glaucoma under topical anti-glaucomatous therapy were examined by immunohistochemistry. Antibodies were directed against laminin ? chains, laminin subchains ?1, ?2, ?3, ?1, ?3, ?2, ?3, kalinin, ?4-integrin, and collagens IV and VII. Results were compared to the antigen distribution at the BMZ in normal skin. The BMZ of skin stained positive for all antibodies tested. In contrast to skin, the BMZ of normal conjunctiva was negative for laminin subunits ?2, ?1, ?3, ?2 and ?3 in most or all specimens. Positive findings at the conjunctival BMZ of patients with glaucoma were comparable to normal conjunctiva for laminin ?, ?1, ?3, ?1, ?3, laminin 5, ?4-integrin, collagen IV and collagen VII. However, staining of the BMZ with antibodies to laminin ?1 (p=0.002) and ?2 (p=0.017) was seen in a significantly higher rate in glaucoma compared to controls. Characteristic differences exist in the antigenicity of the BMZ in normal skin, normal conjunctiva and conjunctiva from patients with glaucoma, especially for laminin subchains. These differences may explain the variable ocular involvement in diseases of the BMZ. Moreover, they may explain the susceptibility of patients with
glaucoma to develop mucous membrane pemphigoid-like disease. Alterations in conjunctival BMZ in glaucoma may be induced by long-term topical anti-glaucoma medications including various preservation agents.