Immunohistochemistry for Immunoglobulin G4 (IgG4) in the Diagnosis of Pemphigus

Introduction: Pemphigus comprises a group of autoimmune bullous disorders with intraepithelial lesions involving the skin and mucous membranes. Pemphigus is characterized histologically by an intraepidermal blister and immunopathologically by the finding of in vivo bound immunoglobulin G (IgG) antibodies against desmosomal adhesion proteins on the surface of keratinocytes. What is clear, At the moment indirect immunofluorescence for IgG has intended as gold standard method for diagnosis of this group of bullous disorders on the condition that fresh frozen tissue is accessible. Aim: We designed a new diagnostic methods by immunohistochemistry for IgG4 on paraffin sections instead fresh frozen tissue and evaluated sensitivity, specificity, positive and negative predictive value of this method. Methods: We searched our pathologic archive of pemphigus from 53 patients, including 92 cases of pemphigus vulgaris and 6 patients with pemphigus foliaceus. In all cases, the diagnosis was confirmed by indirect immunofluorescence studies. Thirty-five specimens served as controls, including 13 specimens of safe margins of Basal cell carcinoma and 4 specimens of normal skin. Sections with condensed and continuous immunoreactivity localized to the intercellular junctions of keratinocytes was considered as positive in manner by 3 pathologists.

Results: Sensitivity of IgG4 estimated 4.27% in pemphigus vulgaris group and 3.38% in pemphigus foliaceus group. The overall sensitivity and specificity of IgG4 immunohistochemistry for diagnosis of pemphigus was 2.47% and 8.28% respectively in pemphigus vulgaris and pemphigus foliaceus groups. Also, positive predictive value and negative predictive value was 2.18% and 3.67% respectively.

Conclusion: Immunohistochemical labeling for IgG4 on paraffin embedded tissue provides a sensitive and specific test for diagnosing pemphigus in situation that fresh frozen tissue Unavailable

Keywords: Pemphigus, Immunoglobulin G, Immunohistochemistry
این صفحه به متن‌ای تاییدیه نماهی سازی مقاله در یافگاه استاندارد سیویلیکا می‌باشد. در هر لحظه به منظور تایید اصلی این گواهی می‌توانید وضعیت ثبت مقاله را از طریق لینک فوق به صورت آنلاین کنترل نمایید.