



AUTOIMMUNE BULLOUS DISEASES

## **DIFFERENTIATION OF AUTOIMMUNE SUBEPITHELIAL BULLOUS DISEASES WITH EXCLUSIVE OR DOMINANT MUCOUS MEMBRANE INVOLVEMENT USING LASER SCANNING CONFOCAL MICROSCOPY.**

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**Introduction:** Mucous membrane pemphigoid (MMP) is a heterogeneous group of autoimmune blistering disorders with high predilection to mucosa involvement. Due to a large variety of clinical manifestations and low detection of circulating autoantibodies new diagnostic methods are needed to establish the precise diagnosis which is crucial for the choice of treatment and prognosis assessment.

**Objective:** The purpose of the study was to evaluate whether it is possible to differentiate autoimmune subepithelial bullous diseases with exclusive or dominant mucous membrane involvement using laser scanning confocal microscopy (LSCM).

**Materials and Methods:**

The study group consisted of 32 patients diagnosed with autoimmune subepithelial bullous diseases confirmed by DIF test where mucosal involvement was the only or the main symptom. LSCM technique relies on comparison between the location of IgG deposits and BMZ markers (antibodies directed to laminin 332 and type IV collagen). Additionally, serum tests such as IIF, split, immunoblot and ELISA were performed.

**Results:** The study showed that LSCM allows an accurate diagnosis of all the studied cases. IgG deposition above laminin 332 typical for BP was present in 6/32 patients, IgG deposition on the level of laminin 332 typical for AECP was reported in 2/32 patients, while IgG deposition below laminin 332 and above type IV collagen typical for MMP was found in 19/32 patients. IgG deposition below type IV collagen typical for EBA was reported in remaining 5/32 patients.

The groups differed in the course of disease and prognosis.

**Conclusions:** The application of LSCM in patients with predominant mucous membrane





involvement was crucial to establish the final diagnosis, initiate appropriate treatment as well as evaluate prognosis and propose an algorithm for further diagnostic and therapeutic procedures. The LSCM is of particular value in cases where it is impossible to determine the antigen for circulating antibodies.

