



AUTOIMMUNE BULLOUS DISEASES

USEFULNESS OF ENZYME-LINKED IMMUNOSORBENT ASSAYS TESTS IN THE DIAGNOSIS OF BULLOUS PEMPHIGOID

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Background: Bullous pemphigoid (BP) and epidermolysis bullosa acquisita (EBA) have almost similar clinical, histologic, and routine immunohistologic features. However, Enzyme-Linked Immunosorbent Assays (ELISA) may be a helpful adjunct to distinguish the two diseases, since the treatment and prognosis may differ.

Methods: A retrospective study was conducted from January 2009 to December 2017. Serum samples from patients with clinical and direct immunofluorescence (IF) features suggestive of BP were analyzed by BP180, BP230 and VII Collagen ELISA.

Results: A total of 56 patients were included in the study. The mean age at presentation was 75 years, and the male to female ratio was 0.51. Among these patients, 18% had an extensive disease (>80% of total skin area), 16% had mucosal involvement and only 9% presented with a localized clinical variant. Anti-basement zone antibodies were detected by standard indirect IF in 57%. ELISA showed a positive BP180, BP230 and VII collagen results respectively in 39 (68%), 25 (45%) and 3 patients (5.4%). A total of 42 patients (75%) had a positive ELISA result for at least one of anti-BP180 or anti-BP230 tests. The diagnostic added value of BP230 ELISA compared with BP180 ELISA alone was 7%. The BP180 antibody titers were significantly correlated with disease extent ($p=0.002$, Pearson=0.4). A positive ELISA BP230 score was associated with the presence of mucosal and extremities involvement ($p=0.03$, 0.01 respectively).

Conclusion: Our results are in line with previous studies regarding the value of ELISA tests for the diagnostic of BP and the correlation between the clinical severity and BP180 antibody serum levels. BP230 ELISA is a reliable but less-sensitive test than BP180 ELISA. Type VII collagen ELISA is useful to rule out EBA.

