

Role of Direct Immunofluorescence in Diagnosing Vesiculobullous Lesions

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Abstract : Vesiculobullous diseases are heterogeneous group of dermatological disorders with protean manifestations. The most important technique for the patients with vesiculobullous diseases is conventional histopathology and confirmatory tests like direct immunofluorescence (DIF) and indirect immunofluorescence (IIF). DIF has been used for decades to investigate pathophysiology and in the diagnosis. It detects molecules such as immunoglobulins and complement components. It is done on the perilesional skin. Diagnosis of DIF test depends on features like primary site of the immune deposits, class of immunoglobulin, number of immune deposits and deposition at other sites. The aim of the study is to correlate DIF with clinical and histopathological findings and to analyze the utility of DIF in the diagnosis of these disorders. It is a retrospective descriptive study conducted for 2 years from 2015 to 2017 in Department of Pathology, GTB Hospital on perilesional punch biopsies of vesiculobullous lesions. Biopsies were sent in Michael's medium. The specimens were washed, frozen and incubated with fluorescein isothiocyanate (FITC) tagged antihuman antibodies IgA, IgG, IgM, C3 & F and were viewed under fluorescent microscope. Out of 401 skin biopsies submitted for DIF, 285 were vesiculobullous diseases, in which the most common was Pemphigus vulgaris (34%) followed by Bullous pemphigoid (21.5%), Dermatitis herpetiformis (16%), Pemphigus foliaceus (11.9%), Linear IgA disease (11.9%), Epidermolysis bullosa (2.39%) and Pemphigus herpetiformis (1.7%). We will be presenting the DIF findings in the all these vesiculobullous diseases. DIF in conjunction with histopathology gives the best diagnostic yield in these lesions. It also helps in the diagnosis whenever there is a clinical and histopathological overlap.

Keywords : antibodies, direct immunofluorescence, pemphigus, vesiculobullous

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020