

Antineutrophil Cytoplasmic Antibodies Types and Titers in Ulcerative Colitis patients. Relationship with Disease Variables

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Abstract

Ulcerative Colitis (UC) is a chronic, relapsing and tissue-destructive idiopathic inflammatory disease. Its etiology has not yet been fully elucidated. Autoimmune processes may play a role in the pathogenesis, since several types of autoantibodies, including antineutrophil cytoplasmic antibodies (ANCA) have been found in this disease. Although numerous studies have dealt with ANCA prevalence, antigenic specificities and clinical significance in UC, the relationship between ANCA types and titers with the disease variables remains controversial. This work aims to distinguish the fluorescence pattern of atypical ANCA (a-ANCA) from that of perinuclear ANCA (p-ANCA) in patients with UC. In addition, the study aims to elucidate the relation between ANCA type and titer in relation to disease variables (extent, activity, duration of the disease and response to treatment). The study included 38 patients with UC, diagnosed by clinical, endoscopic and radiological examinations supported by histopathology. The patients were classified into 4 groups by using a clinical activity score during the study period, including group I (active-quiescent) comprising 6 patients, group II (quiescent-active) including 10 patients, group III (active) comprising 4 patients and group IV (quiescent-) including 18 patients. Paired serum samples were collected from each patient for determination of ANCA type and titer by indirect immunofluorescence (IIF). In this work, 25 (65.8% of 38 patients with UC) had at least one sample included that was positive for ANCA by IIF. Twenty two (88%) of 25 positive ANCA samples were a-ANCA and 3 (12%) were p-ANCA. The presence of ANCA was not related to the clinical characteristics of patients in the four groups. Increasing ANCA titers were detected in 6 patients: 2 in group I, 1 in group II and 3 in group IV, while decreasing ANCA titers

were found in I© patients: 2 in group I, 3 in group II and 5 in group . No significant correlation was found between serum levels of ANCA or patterns of staining by IIF and different disease variables. In conclusion, a-ANCA was found at high prevalence in patients with UC. The a-ANCA represent a potentially valuable diagnostic seromarker for UC and should be differentiated from p-ANCA that are present primarily in patients with systemic vasculitides. Changes in ANCA titers in paired serum samples from UC patients were not correlated with the changes in disease variables. Further studies with antigen-specific tests are recommended to reveal whether UC activity or disease variables correlate with ANCA titers of any defined specificities.

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