

Antineutrophil Cytoplasmic Antibodies (ANCAs) in Patients with Inflammatory Bowel Disease Show No Correlation with Proteinase 3, Lactoferrin, Myeloperoxidase, Elastase, Cathepsin G and Lysozyme: A Singapore Study

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Abstract

Introduction: The pathogenic importance of antineutrophil cytoplasmic antibodies (ANCAs) in inflammatory bowel disease (IBD) is unclear and target antigen localisation studies may lend insight to the specific pathogenic mechanisms of IBD. In this pilot study, we looked at occurrence of ANCA in Asian IBD patients. In ANCA-positive samples, we analysed for the presence of target antigens i.e. proteinase 3, lactoferrin, myeloperoxidase, elastase, cathepsin G and lysozyme. **Materials and Methods:** This prospective study was carried out from July 1997 to February 1998. Sera were screened for ANCAs with indirect immunofluorescent test and tested with an enzyme immunoassay (ELISA) kit which provides a semi-quantitative assay for human IgG autoantibodies against 6 antigens: proteinase 3, lactoferrin, myeloperoxidase, elastase, cathepsin G and lysozyme. **Results:** A total of 75 patients were studied: 50 with IBD and 25 controls with functional bowel disease. Ten had Crohn's disease (CD) and 40 had ulcerative colitis (UC). There was no racial predilection among the Chinese, Malays or Indians. In CD, 1 was positive for cytoplasmic ANCA (cANCA) and 2 for perinuclear ANCA (pANCA). In UC, 4 were positive for pANCA, 15 for atypical perinuclear ANCA (apANCA) and 1 for cANCA. In the CD and UC population, the proportion positive for ANCA was 30% and 50%, respectively. There was no ANCA detected among the controls. Of those ANCA-positive IBD patients (n:23), only 1 demonstrated anti-myeloperoxidase antibodies. No antibodies were detected against the other 5 antigens tested. **Conclusions:** This pilot Singapore study concludes that there is no significant ANCA association with proteinase 3, lactoferrin, myeloperoxidase, elastase, cathepsin G and lysozyme.

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