PTH-068

HOW HELPFUL ARE SEROLOGICAL MARKERS IN DIFFERENTIATING CROHN'S DISEASE FROM ULCERATIVE COLITIS IN INDIAN ASIAN INFLAMMATORY BOWEL DISEASE PATIENTS?

doi:10.1136/gut.2011.239301.469

D G Walker,[1,*] A S Bancil,[1] H R Williams,[1] C Bunn,[2] T R Orchard[1] *[1]Gastroenterology, Imperial College London, London, UK; [2]Immunology, Royal Free Hospital, London, UK*

Introduction Atypical perinuclear antineutrophil cytoplasmic antibody (pANCA), anti-Saccharomyces cerevisiae antibody (ASCA) and more recently Outer Membrane Porin C (Omp-C) have been extensively studied in European and North American IBD populations. There is emerging evidence that the combination of these autoantibodies may increase the accuracy of diagnosis in IBD, however it is not known how reliable these markers are in IBD patients of different ethnicities. The aims of this study were to first determine the prevalence of ASCA, Omp-C and atypical pANCA in Indian Asian IBD patients and controls. The second aim was to determine the

ability of ASCA and atypical pANCA to discriminate between CD and UC in Indian Asians.

Methods A total of 191 Indian Asian IBD patients (UC 139, CD 52) and 36 healthy ethnically matched controls were included in the study. Sera were analysed for the presence of ASCA IgA and IgG and Omp-C antibodies using a commercially available ELISA (Quanta Lite; INOVA Diagnostics, San Diego, USA). To test for atypical pANCA, indirect immunofluorescence was performed on sera diluted 1/10 and tested on ethanol fixed neutrophil substrate (INOVA diagnostics) using FITC-conjugated rabbit antihuman IgG. Sensitivity and specificity were estimated for each serological marker and the relationship between disease phenotype and serological positivity was tested using the χ^2 test.

Results Accuracy of the serological markers ASCA (IgA or IgG isotypes) and Omp-C for differentiation of healthy controls from those with CD showed a sensitivity of 50% and 54% but a higher specificity (75% and 78%). The sensitivity and specificity of pANCA was calculated for differentiating UC from controls as 48% and 97% respectively. The combination of ASCA-/pANCA+ resulted in better diagnostic accuracy for differentiating CD from UC (sensitivity 32% and specificity 92%) than either test alone. There was no significant association with atypical pANCA and UC phenotype (p=0.58). Both ASCA and Omp-C positivity correlated with small bowel involvement in CD patients (p=0.01 and p=0.04 respectively).

Conclusion The low sensitivity of ASCA, Omp-C and pANCA limits their use for IBD screening in Indian Asian populations but the high specificity of combining ASCA and ANCA can be helpful in differentiating between UC and CD in this ethnic group. The reported sensitivities and specificities of ASCA, Omp-C and pANCA in Indian Asians are similar to those observed in Caucasian populations. In addition, the association of ASCA and Omp-C with CD phenotype has also been reported in Caucasian CD patients suggesting similar pathological mechanisms in both ethnic groups.

Competing interests None.

Keywords inflammatory bowel disease, serology, South Asian.