Reviewer's report

Title: CD209 in inflammatory bowel disease: a case-control study in the Spanish population

Version: 1 Date: 13 September 2007

Reviewer: Tooru Shimosegawa

Reviewer's report:

Comments to the Author

General

The authors performed a case-control study between the CD209 gene variant and IBD in the Spanish population, and found the potential association for rs4804803-SNP with HLA-DR3-positive UC. This is an essentially interesting paper in view of the function of CD209 in the innate immunity system, but a number of areas require further work.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Although, a significant association was found (p=0.04) when the carrier frequency of G allele was compared between DR3-positive-UC and the DR3-negative-UC, no association was found in the comparison of the allelic frequency (p=0.1). Significant association must be found in the comparison of the allelic frequency if the rs4804803_G allele confer the UC susceptibility due to affecting the transcriptional activity. In this paper, the statistical significance might be caused by the increased frequency (50%) of AG-hetrozygote patients in DR3-positive-UC. I checked the Hardy Weinberg Equilibrium test in DR3-positive-UC group (AA=31, AG=33, GG=2) and p-value showed 0.051 suggesting relatively higher number of AG-heterozygote than that of expected. Basically, it was possibly due to the small number of DR3-positive-UC (n=66) because of the lower frequency of DR3 in Spanish population.

Considering no association in allelic comparison, weak significance in carrier association (p=0.04), low number of DR3-positive-UC (n=66) and low p-value of HWE for rs4804803 in DR3-positive-UC, a significant association results in DR3-positive-UC were possibly biased. Authors must interpret the results very carefully.

However, this paper is still very interesting even if negative results, because CD209 is one of the extreme candidate gene for IBD, and association study like this paper is very important for the field.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

2. In table1, the disease location of UC is classified into two groups, ‘Left sided’ and ‘Extensive Colitis’, but there is no information about ‘ulcerative proctitis’ if they are classified according to a Montreal classification. Is the proctitis group included in Left sided group, or excluded for study?

Discretionary Revisions (which the author can choose to ignore)

3. It would be helpful to perform case-control studies under the stratification of clinical parameters as well, according to the table1 (at least, the disease location of CD and UC).

What next?: Accept after discretionary revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.