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LETTER TO THE EDITOR

Apolipoprotein E4 and psoriasis

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To the Editor,

We read with great interest the recent article by Coto-Segura et al. [2] about the association of apolipoprotein E (APOE) ε4 allele and psoriasis (Ps). Although allele and genotype frequencies of apolipoprotein E (apoE) did not differ between Ps patients and controls, a positive correlation between APOE ε4 allele and Ps severity appeared intriguing in that such an association might justify apoE as a therapeutic target for psoriasis in future. We agree that more studies on different populations are necessary to confirm this association, while we would like to point out one pitfall of the study.

ApoE is a 34.2 kDa glycoprotein characterized by its wide tissue distribution and multiple properties. The chromosome 19q13, on which APOE ε lies, has been suggested to be involved in autoimmune diseases such as systemic lupus erythematosus [8]. Furthermore, an increasing body of evidence points to the association of APOE ε4 with human diseases such as multiple sclerosis [7], cardiovascular diseases [6], and Alzheimer's disease [5]. However, Coto-Segura et al. excluded patients with diabetes, or hypertension, or coronary heart diseases, or Alzheimer's disease from the control group. The exclusion might consequently result in a reduced allele frequency of APOE ε4 in non-Ps population, thus leading to false positive in their study. From epidemiological investigations, either ethnical or geographical difference has been proposed in APOE genotype distribution in healthy population [3, 4]. And so does the incidence of the above diseases. In this regard, linkage analysis of APOE ε involving both positive and negative controls may be of help to avert the impact of such confounding factors [1]. In summary, it is appealing that APOE ε4 is associated with Ps, and may act as a therapeutic target in future, although more large-scale, population-based studies are still needed.

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