Reviewer’s report

Title: Possible role of EMID2 on nasal polyps pathogenesis in Korean asthma patients

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Reviewer: Lara Sucheston

Reviewer's report:

Summary: The authors choose to investigate the association of variants and haplotypes in this gene with the phenotype of nasal polyps in an asthmatic population based on three lines of evidence; i) the human emilin/multimerin domain-containing protein 2 (EMID2) gene has been implicated as a potential marker of aspirin exacerbated respiratory disease (AERD), a condition characterized by the presence of nasal polyps in nasal passages; ii) the accumulation of the ECM in nasal polyp tissues and; iii) the crucial role of subepithelial fibrosis in disease pathogenesis. The question of asthma phenotypes and genetics is still one of interest in research, particularly across populations, and thus this is a relevant scientific question. The stat. gen methods are sound and for the most part very well detailed.

Major: The study is underpowered and this brings into question the rationale for these experiments; this is a major flaw in the manuscript. If this is to be accepted more detail needs to be provided re: power.

Minor Revisions

1. The authors state “Using the PHASE algorithm ver. 2.0 software [9], haplotypes were inferred from the successfully genotyped SNPs and those with frequency of over 0.05 were selected for association analyses.” It is unclear if the haplotypes analyses were run for “cases” and “controls” separately or the entire population together. More details of this analysis would be beneficial for the reader.

2. The authors state “The current study shows for the first time that EMID2 may be functionally relevant in the pathogenesis of nasal polyps in the onset of asthma.” This is NOT a test of functional relevance it is a test of association of a variant in a potentially functionally relevant gene. This language should be corrected. While the in silico analyses are interesting above statement is quite bold for these data.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests