Reviewer’s report

Title: The G-Protein beta 3 subunit 825 TT genotype is associated with epigastric pain syndrome-like dyspepsia

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Reviewer: Uday Ghoshal

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This is an interesting study evaluating the role of GNB3 825T polymorphism in patients with functional dyspepsia and concluded that the homozygous GNB3 825T allele influences the susceptibility to EPS-like dyspepsia. However, there are a few limitations in the study.

1. How was sample size estimated? What was the power of the sample size? What was the power of sample size used for subgroup analysis?

2. “Our data may explain familial aggregation of patients with functional gastrointestinal disorders” – how many patients with dyspepsia included in the study had family history of dyspepsia? Were there patients from same family included in the study?

3. In the Abstract, methods and results are clubbed together. Also, Result section does not present the data adequately.

4. Numbers in the table does not add up to the number of subjects included as mentioned in the study.

5. Adding 350 (in which UGI and EGD performed) and 318 (in which no test was performed) controls the total is 668; further addition of 136 FD (in which UGI and EGD were performed) and 25 FD (in which no test was performed) total is 171. But when calculated from table 1, FD, EPS and PDS the total is 151. Please clarify such number discrepancy.

6. Results in the main manuscript are presented in sketchy manner.

7. Authors have stated that a total of 171 subjects were excluded from the study. It is not clear that how many were from control group and how many from FD group.

8. Authors have used median and range for the presentation of data. Please specify that whether they have checked by any statistical method whether the data were normally distributed or not?

9. Method is presented after Result and Discussion sections.

10. Clinical parameters should be presented in greater details.

11. It is better not to use both polymorphism and genotype. It should be either polymorphism or genotype.

12. In the abstract authors have used “association between GNB3 protein polymorphism and dyspepsia”. I think, it should be “GNB3 gene polymorphism”.

13. In the Table-1 authors have not mentioned the unit of Age. Please mention “years”.
14. All the patients were evaluated for IBS and GERD. Were all these subjects excluded from the study?
15. I think Discussion is quite elaborate and written well. But is should be shortened.

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

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**
I declare that I have no competing interests