Reviewer's report

Title: Ethnicity and gender related differences in extended intraesophageal pH monitoring parameters in infants: a retrospective study

Version: 3 Date: 21 April 2005

Reviewer: Radu Tutuian

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In the current manuscript Nazer et al report on the gender and race differences in intraesophageal pH monitoring parameters in a large group (N=569) of infants (age <1 year at the time of study). The authors report overall no difference between males and females but found a statistically significant higher prevalence of abnormal pH tests in Caucasian infants group compared to the African-American infants group. The study collected very valuable data and more information can be reported.

Major revisions

1. The focus of the study is on gender and race but other parameters should be reported as they may also influence the results: presenting symptom(s) (i.e. typical vs. atypical), acid suppressive regimen (i.e. off medication vs. PPI vs. H2RA), if recorded, percentage of time spent in various body position (i.e. recumbent/upright, left/right decubitus), if available, results of other investigations (i.e. endoscopy).

2. The methods section indicates collecting data on the timing of symptoms during pH monitoring but no data is reported in the result section. Were symptoms recorded by parents or by other health professionals? Were there any differences in the percentage of patients with a positive temporal symptom association between symptoms and acid reflux? Was this influenced by who recorded the symptoms (i.e. health professional vs. which parent/care giver)?

3. Data on various monitoring parameters is presented in Tables 1 and 2 based on gender separation. Similar data should be presented for race in order to provide a better understanding about the statistical trends reported in the result section.

4. Data were collected 6-10 years ago. It would be interesting to either include more recent data as well or consider reporting on available follow-up data (i.e. how many patients were having persistent symptoms, how many were on acid suppressive therapy, etc.)

Minor revisions

1. Please reference or detail the reason for using a lower cut-off in percent time pH <4 in separating normal from abnormal distal esophageal acid exposure. I.e. why is this study group / equipment considered to be different. Are the any concerns of over diagnosing GERD using the lower cut-off value? Would the differences in race remained statistical significant if one would use the higher NASPGHN cut-off?

2. Please specify if meal periods were or not excluded from the analysis.
**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No

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