Author's response to reviews

Title: Clinical profile, outcome and improvement in quality of life in patients with allergic rhinitis

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Title: Clinical Profile, Outcome and Improvement in Quality of Life in Patients with Allergic Rhinitis

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Reviewer 1: Tsuyoshi Udaka

Reviewer comments:
This study is an analysis of the relationship between allergic rhinitis and QOL.

The definitions are well chosen and clearly laid out. The methods and results are well presented; the discussion is clear and adequate. The conclusions are valid.

Authors reply:
We are extremely thankful to the reviewer for providing valuable input on the manuscript.
Reviewer 2: Ignacio Jauregui

Reviewer comments:
The article is a retrospective study of the patients suspected to suffer from AR attended at the ENT outpatient department of a private hospital in Karachi, from January 2006 to June 2008, based on a file review. It is a descriptive study of a series of 169 patients, intending to describe the impact of the disease and its treatment on quality of life, patient’s expenses and absenteism. Data recorded are presented accurately, with objectivity and a practical sense, and some conclusions are inferred, consistent with other existing studies in other countries and environments.

Authors reply:
Thank you for providing your valuable input on the manuscript. We have tried incorporating your recommendations into the manuscript and hope that you will find the modifications adequate.

Reviewer comments:
In my opinion, however, there are some major objections in the article before a decision on publication can be reached. These objections (always in MY personal opinion) are the following:
1. Diagnostic criteria for allergic rhinitis are absent from the text or tables. AR seems to be no more than a suspected diagnosis. It seems that the possible allergens involved were assumed from the patient’s history or anamnesis. Results on skin tests and/or specific IgE to suspected allergens are not described, so the diagnosis seems to be exclusively symptom-based. This makes very difficult to separate the subgroup of allergic patients from those affected by vasomotor, infectious or other inflammatory rhinitis, as well as those with polyps or other nasosinusal anomalies presenting with rhinitic symptoms.

Authors reply:
We certainly acknowledge the concern of the reviewer regarding the way cases with allergic rhinitis were diagnosed. However, there are a few factors we would like to explain that we hope will be appreciated by the reviewer. AR was diagnosed based on a
thorough history and a complete clinical examination by a single faculty member. By using this comprehensive clinical approach, patients with AR were diagnosed and distinguished from patients affected by vasomotor, infectious or other inflammatory rhinitis. Similarly, patients with other nasosinusal anomalies presenting with rhinitic symptoms were excluded on the basis of history and physical examination. Patients with associated surgical pathology such as deviated nasal septum (DNS), hypertrophic turbinates or nasal polyposis were scheduled for appropriate surgical procedure and excluded from this retrospective review. Unfortunately, skin testing and specific IgE testing against allergens was not performed because of financial restraints cited by almost of the patients attending the clinic. According to recent financial reports, the per capita income in Pakistan is only about $1000; and conducting expensive tests in this clinical arena is not a financially feasible option for many patients when the clinical suspicion for the diagnosis of a medical ailment based on signs and symptoms is fairly strong. The ubiquitous availability of such tests is also an important issue in a developing country like Pakistan because not all medical centers in Karachi offer them.

**Reviewer comments:**

2. It is not described how the QoL was measured. This is a very delicate issue, because QoL measuring is standardized worldwide. When using QoL as a parameter, it is mandatory to know what type of questionnaire was used (generic, or disease-related as RQLQ) and when was used: in baseline situation, and/or after starting therapy, and how long after. In a retrospective study, one cannot measure changes in QoL unless identical questionnaires were made before and after treatment. It is usual to specify in which domains the improvement was noted (sleep, daily activities at home and work, social activities, etc). In addition, QoL experts recommend expressing improvement or changes “before/after” through specific correlation coefficients (see Juniper et al). Perhaps these technical issues in QoL could be overlooked in practice, but this should be explained in the discussion, in my opinion.
Authors reply:
Unfortunately, a standardized tool for measuring QOL was not used because of two primary reasons. Firstly, this is a retrospective chart review whereby a QOL measuring tool could not be administered at baseline and terminus. Secondly, the use of QOL tools in a high volume, busy ENT clinic in a developing country is a highly arduous task in actual clinical practice. QOL measurement was therefore simplified and assessed using a composite score based on variables such as reduction of complaints after institution of treatment as well as reduction in absenteeism from work or school/college. Improvements in sleep and social activities were also enquired about. Patients were asked about improvement in QOL at the end of treatment and this was documented as a percentage in the patient’s charts. Patients reporting more than 50% improvement across the majority of the variables mentioned above compared to their baseline situation were categorized as having an improved QOL. We request the kind reviewer that in the light of this explanation, the technical aspects of QOL measurement be overlooked. We hope that the reviewer will appreciate the difficulties faced in busy clinical practice with use of long and tedious QOL tools.

Reviewer comments:
3. Some points in the discussion are confounding or reiterative.
1) Epidemiologic data regarding allergens involved in AR are inexact and based on an outdated reference.
2) In my opinion, the possible bias in QoL improvement due to the higher socioeconomic level from the AKUH patients only deserves a brief mention, rather than a whole paragraph.
3) Every AR in office workers is assumed as occupational?
4) How the patients measured the “daily exposure time of allergens”?
5) There was or not a significant role for medications in QoL improvement?

Authors reply:
1) More recent data on the allergen distribution pattern have been added in the discussion section as recommended.
2) This paragraph has been considerably shortened as recommended.
3) AR in office workers, specifically experienced during the duration of office hours, as a routine pattern is more “likely” to be occupational type of AR.

4) The daily exposure time to allergens was based on patient’s perception and recall of symptoms occurring in that particular setting over a considerable length of time on most days to any particular allergen. We acknowledge that this measurement is far from perfect and that this variable has a considerable degree of subjectivity, which could be the reason why exposure time of allergens has not been recorded previously in literature. Not all the patients may have been able to correctly recall the hours of exposure.

5) Results of chi-square testing showed that none of the medications had a significant association with QoL improvement; this was in comparison to each other.

**Reviewer comments:**

4. Regarding the tables:

- Table 1. Baseline characteristics of the patients are only related to the nature of job and the controversial “exposure time to allergens”. I think that a table with demographic and clinical characteristics (age, sex, etc) is lacking.

- Table 2. A list of common triggers is associated with symptoms. It is not clear if the percentages are related to the patients or the rhinitis episodes.

- Table 3. Different variables are correlated with an improvement in QoL of uncertain measuring. Among these variables, again the controversial “exposure time to allergens” is included.

**Authors reply:**

Table 1: This has been expanded to include demographic and clinical parameters as suggested.

Table 2: The percentages are related to the patients.

Table 3: Details about QoL have been explained in methods section. Exposure time to allergens has been explained as above.
Reviewer comments:

5. Finally, regarding the references:

- Ref. 2. It is outdated. There is an update from 2008:
  (in collaboration with the World Health Organization, GA2LEN and AllerGen).
  Allergy 2008 Apr;63 Suppl 86:8-160
- Ref. 7: Anonymous instead of “No authors listed”
- Ref. 18. It is a repetition of the reference #5.

Authors reply:

Reference 2 has been updated as suggested.
Reference 7 has been modified as recommended.
Reference 8 has been modified as suggested.
Reference 11 has been modified as recommended.
Reference 18, a repetition of reference 5, has been removed.

Thank you