Author's response to reviews

Title: Weather conditions and sudden sensorineural hearing loss

Authors:

Vasilis Danielides (vdanielidis@hotmail.com)
Christina-Sophia Nousia (bnousias@in.gr)
Aristides Bartzokas (abartzok@cc.uoi.gr)
Christos J Lolis (me00061@cc.uoi.gr)
Maria Kateri (me00126@cc.uoi.gr)
Antonios Skevas (otorl@cc.uoi.gr)

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To the Editors
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Dear Editor

We are submitting our research article entitled "Weather conditions and sudden sensorineural hearing loss" revised according to the reviewers' suggestions. We hope that the revised manuscript meets the journal's requirements.

Answers and comments to the reviewer Prof Ken Kleinman

a) According to your main questions
1. As it has already been mentioned in the text (page 2, line 16) the seasons are defined conventionally (Spring-Autumn-Winter-Summer). We do not consider necessary to define the seasons based on their atmospheric conditions, since the main part of this study (2nd and 3rd part of the methodology) is based on the investigation of a variety of meteorological parameters as well as their variation and covariation through a detailed analysis, which gives an objective picture (independent of the four seasons) of the relationship between the disease and weather conditions.
2. The introduction has been changed in order to concisely include information from previous studies regarding their methods and results. In addition, a paragraph has been added in the discussion (after the detailed review of related articles) focused on the differences between the methodology used in our study and the methods reported in previous studies (page 7, lines 23-25; page 8, lines 1-4).

b) According to your suggestions
1. Logistic regression along with t-test approaches have been included in the statistical analysis as suggested (page 4, lines 7-10; page 5, lines 20-25; page 6, lines 1-6). Spearman correlation could not be applied as it is explained in the text (page 3, lines 20-22).
2. You probably misunderstood the third part of our study, where Factor and Cluster Analysis were used. Factor Analysis was applied to the 13 distinct meteorological parameters and reduced them to 5
factors, while Cluster Analysis was applied to 1,826 days in order to create the 8 characteristic weather types (page 4, lines 11-20).

c) According to your minor points
1. The t-test referred to the seasonal distribution of the disease has been further clarified as suggested. Analysis of Variance and Tukey's honestly significant difference test have also been included (page 5, lines 14-17).
2. We believe that the last figure is important for the comprehension of the 3rd part of our study. Therefore we would not like to omit it.

Answers and comments to the reviewer Dr Serena Preyer

According to your suggestions
1. Using absolute number of cases (n) rather than percent of cases on the Y-axis in figure 1, the columns that represent the total group of patients become much longer than these represent the group of man or woman separately, leading to a less distinct depiction of our conclusions. Therefore, we insist on using percent of cases on the Y-axis of figure 1.
2. The title of the Y-axis in figure 2 has been changed to "number of cases (n)" instead of "cases" according to your suggestions.
3. The legend of the last figure has been changed, in order to be more descriptive and explanatory as suggested (Figure 3).

Additional notes

We have omitted the figure that presented the inter-annual distribution of the disease and included the number of cases per year in the text instead (page 5, line 12). Finally, we would like to mention that the statistician Dr. Maria Kateri was included among the authors, due to her valuable contribution in order to modulate the statistical part of the study according to the reviewers' suggestions.

Hoping that we have given answers to all your suggestions, we would like to thank you once again for your cooperation. However, we are always available for any further information.

Kind regards
Dr Vasilis G. Danielides, MD, Assistant Professor
Department of Otorhinolaryngology
University of Ioannina
Medical School
PO Box 1186
Ioannina, 45110, Greece
Tel: 0030 6510 97513
Fax: 0030 6510 77430
E-mail: vdanielidis@hotmail.com