Author's response to reviews

Title: Stroke prevalence in Spanish elderly from screening surveys

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Author's response to reviews: see over
Dear Sir,

We have followed in detail your indications for revising the manuscript *Stroke prevalence in Spanish elderly from screening surveys* according to the reviewer indications. We attach the text indicating location of different comments and their answers.

In addition, we attach a paper “del Barrio JL, Medrano MJ, Arce A, Bergareche A, Bermejo F, Díaz J et al. Prevalencia de factores de riesgo vascular en poblaciones españolas de 70 y más años en estudios puerta a puerta de enfermedades neurológicas. Neurología. In press. Accepted June, 5, 2006”, in order to clarify questions of Mr. Avendaño.

Changes in the manuscript were done in the following sections and paragraphs:
DISCUSSION: 5th – 6th paragraph.
BIBLIOGRAPHY: Three new references.

We thank you for yours suggestions.

Thanking you in advance for your attention in this matter. Yours faithfully,

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ANSWER TO REFEREE

Minor essential revisions

Question 1

Although the discussion has very much improved, my main concern is still that an attempt to discuss the possible causes of the differential patterns between regions has not been made, as well as the differences among rural, suburban and urban areas. Such discussion could help making the message of the paper to an international audience much clearer. For instance, such discussion can be supplemented by simply contrasting the regional pattern of stroke prevalence in the present study, with the regional pattern of stroke risk factors such as hypertension and smoking as observed in previous surveys. For instance, have previous studies shown that hypertension levels are higher in El Prat de Llobregat region as compared to other regions in Spain? Are there differences in hypertension, smoking or other factors between urban and suburban regions? By discussing these issues, the present paper can make a more important contribution to understanding the geographic distribution of stroke.

Answer

We appreciate the question which is highly opportune since a paper (del Barrio JL, Medrano MJ, Arce A, Bergareche A, Bermejo F, Díaz J et al. Prevalencia de factores de riesgo vascular en poblaciones españolas de 70 y más años en estudios puerta a puerta de enfermedades neurológicas. Neurología. In press. Accepted June, 5, 2006.) on vascular risk factors in the studied populations has been recently accepted. Following the suggestions we elaborate some argument about reasons for geographical variation of stroke prevalence and quote two reports on risk factors difficult to be used at our level, and aspects from this paper. While we do not believe we found convincing reasons to explain major differences in stroke prevalence we think we reach a limit difficult to reasonably cross without speculation.
Question 2

In page 10, paragraph 1, authors make an attempt to explain the age and sex patterns observed in their study. It is good that authors have attempted to do so. However, their explanation is confusing and does not seem to lead to any firm conclusion. Authors claim that the effect of differential incidence traits explain the three phenomena observed (fall of prevalence among men at late ages, rising trend among women, and higher percentage of women in the elderly). But what do authors mean exactly with differential incidence traits? Perhaps authors mean to say that the incidence of stroke is higher among women than in men. If so, this statement needs to be more explicit and supported with reference to previous studies on incidence in Spain or other regions. My impression is incidence alone cannot really explain the pattern: For instance, in the Netherlands, a similar pattern is observed as in this study: Prevalence of stroke in the population is higher among men than women up to age 89, after which women show a higher prevalence. In contrast, the incidence of stroke is higher in men than women at all ages, and remains so in all ages groups. The decline after age 89 is also observed among men but not among women in the Netherlands (please see: http://www.rivm.nl/ftv/object_document/o1027n17966.html forberoerte (stroke)). Thus, incidence does not seem a plausible explanation. I suggest authors reconsider this and perhaps try to provide a more clear and plausible explanation.

Answer

We agree with Mr. Avendaño about the difficulties to claim that incidence may explain differential traits of prevalence between sexes in Europe. His observation made us review reported stroke incidence quality data for European populations and we found only two surveys Pamplona and Rotterdam (ref 13) being small sized that in Austria. Differences in trend with age of the age-specific incidence between sexes are different (decreasing in Pamplona in men and increasing in woman, increasing with age in both sexes in Rotterdam). We change our discussion so that we avoid talking about common stroke prevalence patterns in Spain and Europe and we refrain from explaining the European pattern by incidence. We believe differential pattern of age-specific stroke incidence in men and women in Spain is now clearly defined.
Question 3

Could authors comment on higher underreporting in the rural areas as a possible explanation of their lower prevalence?

Answer

We mention the lower prevalence of four risk factors, and – explicitly - do not exclude underreporting to explain low prevalence in Arévalo.

Discretionary Revisions

Question 4

Several tables and figures present exactly the same prevalence results. In particular, table 2 presents the same findings as figure 2, and table 4 the same findings as figure 3. Figures are important because they help the reader understand the pattern. However, tables present also absolute numbers. My suggestion would be that, if there are journal space limitations, authors considering presenting either tables or figures for the presentation of rates, as it is not common practice to have the same estimates in both.

Answer

We believe both tables and figures are needed.

Question 5

Authors state that compared to European data, Spain can be said medium. Perhaps it would be best to replace the term medium by average (e.g., the prevalence of stroke in Spain was average as compared to that in other European regions).

Answer

We believe the terms medium and average have a different meaning being the correct MEDIUM, i.e. intermediate level.