Reviewer’s report

Title: The striking geographical pattern of gastric cancer mortality in Spain: environmental hypotheses revisited

Version: 3 Date: 29 October 2008

Reviewer: Nuno Lunet

Reviewer’s report:

This is an interesting and well written manuscript presenting a description of the gastric cancer mortality rates throughout Spain. Although the discussion of the regional differences in gastric cancer mortality is essentially speculative this is an interesting work.

Minor Essential Revisions

1) Page 3, paragraph 4, last phrase.
   “Diet and H. pylori infection are considered the most important factors involved in this type of cancer. Diffuse AC, with an M:F ratio bordering on unity, is the most usual histologic type in gastric cardia neoplasms, is more frequent among the young, and has been linked to constitutionally-related factors (e.g., obesity and gastrointestinal reflux)”

   Could the authors add a reference to this statement?

2) Page 5, paragraph 2, line 2
   “gastric mortality” should be replaced by “gastric cancer mortality”

Major Compulsory Revisions

1) The potential contribution of H. pylori infection to explain the regional differences observed should be further explored by linking the available prevalence estimates to the regions in which they were observed, or providing a sound explanation for not doing so.

2) The authors suggest that environmental exposures (other than H. pylori infection, dietary habits or smoking) may contribute to explain the geographical differences observed, but it should be made clear how sound and consistent is the evidence supporting such claims.

3) The lag between exposure to tobacco and the occurrence of gastric and lung cancer (and the probable differences between these two cancer locations regarding this aspect) should be taken into account in the discussion.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

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

Declaration of competing interests:
I have no competing interests.