Reviewer's report

Title:  Allergic conditions and risk of hematological malignancies in adults: a cohort study

Version: 1  Date: 28 June 2004

Reviewer:  Brigitte Schlehofer

Reviewer's report:

General
In the manuscript “Allergic conditions and risk of haematological malignancies in adults: a cohort study”, Karin C. Söderberg et al. investigate the association between allergic conditions and the risk of developing leukemia, Hodgkin’s disease, non-Hodgkin’s lymphoma and myeloma in a cohort of Swedish twins.
The paper is well written and gives additional hints for the hypothesis that hives might increase the risk for leukaemia and childhood eczema the risk for non-Hodgkin’s lymphoma, albeit of the results are not significant.
Allergic conditions were prospectively collected, so that differential misclassification might be unlikely. However, the conditions were self-reported and not confirmed by a physician.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Method section:
In general, the method should be described in more detail.
The description of the cohort and the respond rate is somewhat confusing, especially when changing from twin pairs to individuals. The authors should help the reader understanding the selection of the participants by clarifying this.
Were twin pairs in the follows-up or just individuals out of the twin cohort? Does any information exist whether the twin-sibling was also affected with allergic diseases or did develop cancer?
To evaluate the strength of the study, the authors should give more precise information concerning the exposure assessment, especially the way allergic conditions were asked in 1963 and 1967 and whether information was collected about medical treatment, especially long term treatment with cortisol. Is there any information about age at which time allergic disease was first recognized and whether the allergic reaction (e.g. for eczema) is still active when cancer had developed?
Also the merging of answers from the two data sets (1963 and 1967, when information in the questionnaires of 1967 was lacking, has to be more precise:
Did the authors include the “yes” and also the “no” from 1963 for all participants where answers in the allergic fields were missing in the questionnaires from 1967?
What about missings?

Table 2 and Table 3:
Numbers of exposed and unexposed participants should be included in the columns even if RR could not be calculated.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Table 2 and Table 3:
Numbers of exposed and unexposed participants should be included in the columns even if RR could not be calculated.
Discretionary Revisions (which the author can choose to ignore)

**What next?:** Accept after minor essential revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

None