Reviewer's report

Title: Prevalence of thyroid nodules in an occupationally radiation exposed group: a cross sectional study in a modest iodine intake area

Version: 1 Date: 29 March 2005

Reviewer: Paolo Vitti

Reviewer's report:

General
In this paper Tretoli et al. study the prevalence of thyroid nodules in 304 workers exposed to radiation, with a control group of 419 non-exposed subjects living in an area of mild iodine deficiency. The prevalence of nodules < 1 cm in the study group was 10.4 % in males and 16.7 % in females, and in controls 9.4 % and 13.2 % respectively. Nodules > 1 cm were more frequent in non-exposed than in exposed subjects. The authors conclude that mild iodine deficiency is more important than radiation exposure as a cause of thyroid nodularity.

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

Comments
1. Table 1: it is not clear whether subjects with missing data were excluded, as they should. If so, this number should be subtracted from the total n. of subjects reported in the last line of the Table.
2. Table 2: headings of the Table for Males and Females subgroups should be the same. Controls are not matched for sex: Males 182 non-exposed vs 210 exposed to radiation; Females 197 non-exposed vs 73 exposed. This could alter the statistics.
3. Title (and other parts of the manuscript): "modest iodine intake" is not sound. The expression "mild iodine deficiency" is more appropriate.
4. Discussion pag 10: “therefore, the high prevalence of incidentalomas……”. This sentence should be rephrased taking into account the data reported by Leenhardt et al, JCEM 84:24-28, 1999.

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

Background, 3rd paragraph: “….general consensus in the that...” ???

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No