Reviewer's report

Title: The spectrum of thyroid dysfunction in an Australian hepatitis C population treated with combination Interferon-alpha-2beta and Ribavirin

Version: 1  Date: 9 August 2005

Reviewer: Edmund Bini

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General
Tran et al conducted a retrospective cohort study to determine the incidence of thyroid dysfunction among Australian patients with chronic HCV infection. In their study, the incidence of thyroid dysfunction during interferon and ribavirin therapy was 7% and hypothyroidism was more common than hyperthyroidism. Although several studies have evaluated thyroid dysfunction during HCV therapy, this has not been studied in the Australian population. The results of the study are interesting and the paper is informative.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The introduction on page 4 mentions that an assessment is made of hypothyroidism in the treated and untreated group. However, there is no group of untreated patients presented in the paper. I assume you mean prior to treatment as opposed to an untreated group. Please clarify. In addition, it would be interesting to describe the incidence of thyroid dysfunction in HCV patients during follow-up who did not receive HCV treatment if this data is available.
2. More details should be provided in the methods section about the type of “routine thyroid tests” performed before and during treatment.
3. Although the paper is primarily descriptive, it would benefit from the inclusion of a brief statistical section in the methods.
4. A table should be included describing the baseline characteristics of all of the subjects, including age, sex, race, HCV genotype, HCV viral load, family history of thyroid disease (if available), and other relevant variables.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1. In the 2nd paragraph on page 5 it states that HCV genotype 1 patients were treated for 48 weeks. Was therapy continued past 24 weeks if the patients still had detectable HCV RNA?
2. The results section refers to table 3, then table 1, and then table 2. The numbering should be corrected to make the paper easier to follow.
3. The 2nd sentence in paragraph 2 on page 13 should be rewritten so it reads better.
4. Line 5 of paragraph 2 on page 13, change “TSHes” to “TSH levels.”

Discretionary Revisions (which the author can choose to ignore)
1. Hepatitis C virus is abbreviated as HCV in the abstract but HCI throughout the paper. Since HCV is standard, it may be better to change them all to HCV.
2. Ribavirin is abbreviated as “Rib” and this is non-standard. It would be better to spell it out or use RBV.
3. Although the incidence of thyroid dysfunction is low, it would be interesting to describe any factors
associated with an increased incidence of developing thyroid dysfunction, such as pre-treatment thyroid antibodies, family history of thyroid disease, sex, and others.

4. Table 1 and figure 1 present the same data in 2 different formats. One of these should be deleted. Personally, I like the graph better than the table and would delete the table.

5. Table 3 is very wide and will be difficult to read. It would be more readable if the columns and rows were switched (put subject 1, 2, 3, and 4 in the columns and the variables in the rows).

What next?: Accept after minor essential 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

Declaration of competing interests:

I declare that I have no competing interests.