Author's response to reviews

Title: Cost-effectiveness comparison between palpation- and ultrasound-guided thyroid fine-needle aspiration biopsies

Authors:

Ahmet Selçuk Can (selcukcan@endokrinoloji.com)

Version: 2 Date: 4 January 2009

Author's response to reviews:

January 4, 2009

Manuscript ID: 6790922732322049

Title: Cost-effectiveness comparison between palpation- and ultrasound-guided thyroid fine-needle aspiration biopsies

Ahmet Selçuk Can

Dear Editor:

The manuscript has been revised. The response to reviewers is given below.

Yours sincerely,

Signed by: Ahmet Selçuk Can

Response to reviewer-1 (YoungKee Shong, Date of reviewer’s report: 10 Nov 2008):

First of all, I thank to all reviewers. Their criticism made the manuscript better and more understandable.

Sentence 1-2: Sentence 1-2 are comments. I agree. Response to sentence-1 was made on page 13 (limitation of the study section) of the manuscript. No change is requested by the reviewer.

Sentence 3: The reviewer-1 states that most of the inadequate cytological results come from cystic nodules. This is true in general practice but cystic nodules are excluded in this study. There are no cystic nodules in both (palpation and ultrasound-guided) groups.

Sentence 4: This issue has been raised by Reviewer-2 (Carlo Capelli) in the
initial submission. The same response will be provided: United States National Cancer Institute (NCI) recently published the synopsis of thyroid FNA State of the Science Conference [1]. On page 443 of the NCI report they published a flowchart for thyroid fine-needle aspiration. For inadequate specimens (nondiagnostic results) there are two arms, one for the cystic nodules, and the other for solid nodules. Cystic nodules were excluded in this study. For solid nodules, the next step is to perform USG-FNA. The same approach was followed in this study. The next step for the second inadequate specimen (nondiagnostic result) is "strongly consider surgical consult", as is the case in this manuscript. The same approach was followed in this study. NCI recommends clinical and USG follow-up for only nodules that are <1 cm in diameter and if the patient is reliable. All the nodules are 1 cm and over in this manuscript. On page 7 of the American Thyroid Association thyroid nodule management guideline paragraph R6, a similar recommendation was made [2]: “Surgery should be more strongly considered if the cytologically non-diagnostic nodule is solid.” American Association of Clinical Endocrinologists (AACE) Thyroid Nodule Management Guidelines page 87 table 18, last sentence recommends surgery for repeatedly inadequate thyroid FNA for solid thyroid nodules [3].

Sentence 5: Reviewer-1 comment is inserted to page 12 (the first sentence of Manipulation of data with alternatives section) of the manuscript.

Sentence 6: There is no indication for hemithyroidectomy in case of first inadequate cytological result. There is an indication for hemithyroidectomy in case of repeatedly (for example, two consecutive FNAs) inadequate FNAs, as explained in response to sentence 4. The references are given in the response of sentence 4 (above).

Sentence 7: Done. The information about echo structure and echogenecity of inadequate cytological results were given in the results section on page 9 of the manuscript.

Response to reviewer-2 (Carlo Capelli, Date of reviewer's report: 27 Nov 2008):

Sentences 1-2-3-4-5: Sentences 1-5 are comments. I agree. No change was requested.

Sentence 6: Done. The following sentences were added on page 9 of the manuscript. “There was a high prevalence of medullary thyroid cancer in the USG-FNA group. The medullary thyroid cancer patients were not relatives and there were no cluster of familial medullary thyroid carcinoma in this study.”

Response to reviewer-3 (Mustafa Cesur, Date of reviewer's report: 15 Nov 2008):

Major Compulsory Revision:

1) Done
Minor Essential Revisions:

1) No change is requested.

2) The choice of the method for thyroid FNA was further explained on page 6.

3) Done (page 6)

4) The reviewer wrote that the study had performed mostly in small nodules (mean diameter <1.3 mm). I reached the conclusion that Reviewer-3 misunderstood the nodule diameter in this manuscript. 1.3 mm is logarithm of nodule diameter in mm. Table 2 indicates that Log (nodule diameter in mm) is 1.26 for P-FNA and 1.27 for USG-FNA. In Reviewer-3’s own study, on page 557, he wrote that the mean maximal nodule diameter was 15.8±4.0 mm. The median maximal nodule diameter is 18.4 mm in P-FNA group and 17 mm in USG-FNA in this manuscript. So this study was not performed on very small nodules. Only nodules ≤10 mm was included in this manuscript. Nodule diameter did not have a normal distribution in this study. It is necessary to give nodule diameter in logarithmic form because its distribution was positively skewed and a t-test was performed on log (nodule diameter). From reviewer’s statement, I understand that it is confusing to give mean nodule diameter in logarithmic form. This will cause a misunderstanding to the readers as well. Table 2 was not changed, but untransformed nodule diameter value (median, 25th percentile and 75th percentile) was given in the results section, page 9. The high rate of inadequate smears in this study was comparable to Mehrotra’s study. All of the requested changes by reviewer-3 were done. The following was added to page 9. “The median maximal nodule diameter was 18.4 mm, the 25th percentile 12.5 mm and 75th percentile 25.8 mm in the P-FNA group. The median maximal nodule diameter was 17.0 mm, the 25th percentile 14.0 mm and 75th percentile 22.8 mm in the USG-FNA group. There were no differences in nodule diameter between groups (table 2).” The following was added to page 13. “Mehrotra and coworkers reported an inadequacy rate of 47% for P-FNA and 16% for USG-FNA [4]. Our inadequacy rate is not greatly different from Mehrotra’s rates.”

References:

