Reviewer’s report

Title: Prevalence and types of thyroid malignancies among thyroid enlarged patients in Gondar, Northwest Ethiopia: a three years institution based retrospective study

Version: 7 Date: 16 August 2014

Reviewer: Anjali Mishra

Reviewer’s report:

Major Compulsory Revisions

1. Background: Paragraph 3, the statement "A report from ------- may put patients at risk for certain serious conditions, such as cardiovascular diseases-------------" is true about thyroid dysfunction but not about thyroid malignancy.

2. Methods:
   - What was the clinical profile of the patients e.g. thyroid dysfunctions, compressive symptoms or presence of lymphadenopathy. Is your hospital a referral hospital? Were these all referred patients/ selective patient population or patients seen at primary encounter.
   - Does the patient population hail from iodine deficient area?
   - How was nodule size assessed in those not operated by clinical palpation or by help of ultrasonography?
   - What system of FNAC reporting is followed e.g. Bethesda or any other.

3. Results:
   - Out of 846 patients, how many had histological diagnosis? If tissue diagnosis was available only for the Follicular/Hurthle Cell neoplasm and inconclusive category, how could we be sure about the exact prevalence of Malignancy? Because it is well established that the risk of malignancy among benign aspirate varies between 1-3% and similarly among those reported as malignant the false positive could be between 0.5-1%. Thus unless tissue diagnosis in all the categories of aspirates is available the data regarding prevalence of malignancy wouldn’t be accurate.
   - What were the indications of surgery in those who were operated?
   - Were all patients euthyroid or some presented with thyroid dysfunction? If so give the break-up and the prevalence of malignancy in different functional categories.
   - What was the TNM distribution of malignant tumors and what was the mean tumor size in malignant group?
   - 6.5% patients had metastases to thyroid. What was the distribution of primary
malignancy in this category (Figure)?
- 12.9% had undifferentiated carcinoma which should be highlighted in result and abstract as well.

4. Discussion
- Para 1; Ref 10 does not pertain to India and originates from the University College
and Middlesex School of Medicine, Mortimer Street, London
- The authors didn’t discuss about the limitations and future implications of the study. They need to add a para about this.

5. References
- List too long and superfluous.

Minor Essential Revision

Results:
- Provide SD/SE of mean for age.
- M:F= one digit after decimal should suffice.
- Table 2: expand COR and AOR in footnote.

Discretionary 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:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**
'I declare that I have no competing interests'