Author’s response to reviews

Title: Usefulness of core needle biopsy for the diagnosis of thyroid Burkitt's lymphoma: a case report and review of the literature

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BEND-D-18-00216R1 POINT-BY-POINT REPLY

We thank the Reviewers for their comments, which have helped us to improve the overall quality of our manuscript. Please find below our point-by-point reply to all the comments that have been raised.

Reply to Reviewer 1 - Prof/Dr Dong Eun Song:

1. Specify the kind of biopsy performed to 70(M) patient reported by Allaoui M et al (20) in Table 1. You described 7 out of 23 patients were diagnosed by core needle biopsy, and I guess this patient were counted to be diagnosed by core needly biopsy.

Reply: taking into account the Reviewer comment, we have now specified in Table 1 the kind of biopsy that was performed to the patient described by Allaoui M et al (now reference #21), which was a CNB.
2. In the discussion, FNA was performed in 11 patients (47%), but I can find only 6 patients in Table 1. If the FNA data is not correct in Table 1, the data for FNA should be corrected.

Reply: Thanks to the Reviewer comments, we have double checked the information in Table 1. After a careful revision of all the case reports we have found that 12 patients underwent FNA, and we have corrected the data for FNA. In particular, the patients who underwent FNA are those reported by Ruggiero, Kalinyak, Camera, Kandil, Bongiovanni, Mweempwa, Cooper, as well as five patients described by Quesada. In addition, we have specified that the diagnostic method used by Thieblemont was CNB (in the previous version we wrote N/A). Last, we have separated the patients who underwent incisional biopsies/open wedge biopsies to those who underwent open surgery. Please find all these changes in the Discussion section, page 8, lines 173-179, as well as in Table 1.

3. The initial FNA of this patient did not provide a definite diagnosis for malignant lymphoma.

   If there are reported cases of thyroid Burkitt's lymphoma diagnosed by the initial core needle biopsy without FNA among references (20), (21), and (22), you can emphasize possible these patients in the discussion.

Reply: In order to emphasize the importance of CNB and to answer also to both Reviewers, we have decided to add more details of the elements required to make the diagnosis of Burkitt's lymphoma, instead of describing the single patients. Please find all the changes in the Discussion section, pages 7-8, lines 137-179.

Reply to Reviewer 2 - Prof/Dr I. Cozzolino:

1. Case presentation: "In has been argued that patients with suspected thyroid lymphomas require excision or core needle biopsy for diagnosis [7]” It should be moved to the discussion.

Reply: the sentence has been moved to the Discussion section, page 7, lines 147-148.

2. The authors should actually clarify whether the decision to perform the CNB was made following a multidisciplinary decision. CNB was performed after the FNC ?! Or It was performed simultaneously with FNC after on-site evaluation of the cytological sample ?!

Reply: Thanks to Reviewer comment, we have now clarified that the decision to perform the CNB followed the rapid on-site evaluation of the FNA specimen that turned out to be suggestive
of lymphoproliferative disorder but unsatisfactory/nondiagnostic, such that the CNB was performed the following day, after checking the blood coagulation profile. Please find these changes in the Case Presentation, page 4, lines 86-90.

3. The microscopic description of the CNB is really bare. The diagnosis was only morphological? Immunohistochemistry has been performed?! Or other ancillary techniques such as FISH.

Reply: Taking into account the Reviewer comment, we have now added the details of the pathology reports and clarified that the diagnosis was based on the morphology of thyroid tissue and the morphology + immunostains of the bone marrow specimens. Please find the details of the pathology reports in the Case Presentation, page 4-5, lines 91-96 and 98-102.

4. Discussion: "...... a specimen that is adequate not only for immunohistochemical stainings, but also for histological analysis" …...the authors should clarify this expression.

Reply: we agree with the Reviewer on the ambiguity/clumsiness of this sentence, which has been changed to “Nevertheless, our case reminds that CNB should not be dismissed as it can become extremely useful in cases of thyroid lymphomas, where it allows to obtain a specimen that is adequate for histological/morphological tissue analysis, as well as for other key diagnostic tests.” (Discussion section, page 8, lines 168-171).

5. Furthermore, they should clarify the possible ancillary techniques applicable on CNB and their diagnostic accuracy.

Reply: taking into account the Reviewer comment, we have presented the additional techniques that allow to diagnose a Burkitt’s lymphoma in the Discussion section, page 7-8, lines 158-161.