Reviewer’s report

Title: A rare case of poorly differentiated thyroid carcinoma probably arising from a nodular goiter

Version: 0 Date: 11 Feb 2017

Reviewer: Catarina Eloy

Reviewer’s report:

Dear Author,

The paper "A rare case of poorly differentiated thyroid carcinoma probably arising from a nodular goiter" was submitted to appreciation by Yasuoka et al.

The paper reports a case of thyroid lesions, including nodular goiter and poorly differentiated carcinoma, in a 35 year old woman with a previous history of gastric adenocarcinoma at 29 years old.

The following observations are made regarding each section:

- Introduction does not explore the epidemiological problem of a poorly differentiated carcinoma in such a young age and do not explore either the association with gastric adenocarcinoma at 29 years old.

- Material and methods section is poor regarding the description of the molecular studies.

- The results include poor quality images that do not help to understanding the case. The reported case of poorly differentiated carcinoma without necrosis and without vascular vascular invasion in such a young patient is very unusual and needs additional iconographic documentation to a proof of concept. Cytological findings are not documented in photographs. Differential diagnosis with the multinodular subtype of the follicular variant of papillary carcinoma is not presented.

- Discussion and conclusions are speculative in the sense that the adenomatous nodule may not be the origin of the poorly differentiated carcinoma. There is a possibility that the adenomatous nodule is being invaded by this tumor with high mitotic activity. Discussion does not explore the epidemiological problem of a poorly differentiated carcinoma in such a young age and do not explore either the association with gastric adenocarcinoma at 29 years old.

Best regards.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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