

## Authors' response

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Response to the letter to editor:

The letter of Rossi et al. regarding the prediction of *BRAF V600E* mutational status based on cytomorphology on fine needle aspiration of papillary thyroid carcinoma is illuminating and gratifying. The authors have taken the association of “plump cells” and *BRAF V600E* mutation a step further by quantifying the presence of the former as “diffuse” and “limited”. While we did not do a quantitative analysis of the plump cells, we did observe that even the presence of focal plump cells was associated with the mutation, especially in the presence of fibrosis. We would also like to point out that the plump cells were present in 29 papillary thyroid carcinomas: 21 of 26 (81 %) mutation positive (not 72 % as stated by the authors) and 8 of 24 (33 %) mutation negative tumors. We

wonder if sample preparation may affect the 100 % detection of plump cells in fine needle aspiration cytology as compared to formalin-fixed paraffin-embedded tissues.

We read with great interest about the “sickle nuclei” on fine needle aspiration cytology of papillary thyroid carcinoma and its association with *BRAF V600E* mutation. It is impressive and encouraging to note the excellent inter-observer agreement in predicting *BRAF V600E* mutation on cytology in the absence of architectural details. We would like to add that to the best of our knowledge, the morphologic prediction of *BRAF V600E* mutation has not been tested in pediatric thyroid carcinoma and should be applied with caution in this age group until more data becomes available.

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