

Reply to letters to the editor on the thyroid fine needle aspiration biopsy learning curve[☆]



Respuesta a cartas al editor sobre la curva de aprendizaje de punción-aspiración con aguja fina de tiroides

Dear Sir,

We appreciate the interest and consideration of the authors who have published letters in your journal in relation to our work on the learning curve of fine needle aspiration biopsy (FNAB) of the thyroid gland. We can contribute little to such letters, since we agree with most of their conclusions.

Regarding the letter entitled: "Considerations in relation to the learning curve of thyroid fine-needle aspiration biopsy and the experience of our center",¹ we would like to make the following comment:

The study comprising 100 ultrasound-FNAB procedures has more limitations than those indicated by the authors. Since the text does not state otherwise, we understand that the assignment of nodules to the person performing the puncture procedures was not random, and thus involved selection bias. Furthermore, we suspect that a 21 month period, with the intervening holiday periods, inevitably implies intervals with fewer punctures. This could have caused variations in the percentage of diagnoses on the resumption of the technique, such as the surprising decrease observed in the graphic plot between punctures 20 and 40.

Cumulative frequency makes it difficult to identify the likely high percentage of diagnoses of the most recent punctures. In fact, by examining the graphic depiction accompanying the letter, we cannot know the percentage corresponding to the last 20 punctures.

We believe the authors to be mistaken in assuming that their curve will not experience variations. The variations in cumulative frequency are inevitably lower as the number of punctures increases, but we understand that increased experience with the technique will increase this frequency. In fact, we were surprised that a 73% percentage diagnostic rate was considered acceptable and stable.

Lastly, we cannot accept the suggested lack of ethics of our work. The extra puncture performed in each patient is the price of learning the technique. The price is the same as that paid by the authors of the letter in allowing a colleague to perform 40 punctures with a cumulative percentage diagnostic rate of 65%, considering that there is probably someone in the same department achieving a rate of over 80%.

With regard to the letter entitled: "Learning curve of thyroid fine-needle aspiration cytology in a thyroid nodule clinic",² we would like to make the following comment:

We understand that our work is essentially different from that presented in this letter and which exhibits data corresponding to 15 six-month periods. Any technique performed during that period of time inevitably experiences marked changes. The short duration of our study eliminates this variability: the same endocrinologists, the same pathologist, the same assistant, the same ultrasound equipment, and the same clinic were involved. What the authors describe is another situation entirely.

The percentage of diagnostic cytological studies of the authors of the letter was good after 55 punctures, the result being similar to that published by our own group. That improvement occurs over the years is not surprising: without doubt, M.A. Martín, who started to learn the technique, will obtain higher percentage diagnostic rates in the future. The professional who probably has no margin for improvement is M. Penín, who has been performing FNAB uninterruptedly since 1995.

With regard to the non-diagnostic cytological studies, we are informed that "Bethesda (...) acknowledges that (...) these should be limited to no more than 10% of the thyroid FNABs". This is not so: Bethesda says that "ideally the figure should be no more than 10%", and in the same paragraph explains that the figure is "in 2–20% of the cases".³ The ATA states that the non-diagnostic cytological study rate is "2–16% of the cases".⁴ The study by Tofé-Povedano et al., cited by the authors, mentions several series ranging from 4 to 19%.⁵ In turn, a recent meta-analysis of 204 publications and 4746 nodules showed a non-diagnostic cytological study rate of 22%.⁶

We were surprised to read that the results of our study "differ from the (...) experience of any specialist who has acquired learning in ultrasound-guided FNAB". As if we were not precisely specialists with acquired learning in ultrasound-guided FNAB. We would have been very pleased to coincide with the results of other colleagues, but our experience is that we have published.

The authors believe that we underestimate the difficulty of the technique. We opine otherwise, however: the technique is easy.

The fact that our contribution has served to generate debate is a cause for celebration, and we encourage other working groups to share their experience. We feel that knowing this information could be useful for all those who perform FNAB, and of benefit for the patients we care for.

References

1. DOI: 10.1016/j.endinu.2018.03.014.
2. DOI: 10.1016/j.endinu.2018.03.013.
3. Cibas ES, Ali SZ. The Bethesda system for reporting thyroid cytopathology. *Thyroid*. 2009;19:1159–65.
4. Haugen BR, Alexander EK, Bible KC, Doherty GM, Mandel SJ, Nikiforov YE, et al. 2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer: The American Thyroid Association Guidelines Task Force on Thyroid Nodules and Differentiated Thyroid Cancer. *Thyroid*. 2016;26:1–133.

[☆] Please cite this article as: Penin M. Respuesta a cartas al editor sobre la curva de aprendizaje de punción-aspiración con aguja fina de tiroides. *Endocrinol Diabetes Nutr*. 2018;65:423–424.

5. Tofé Povedano S, Argüelles Jiménez I, García Fernández H, Quevedo Juanals J, Díaz Medina S, Serra Soler G, et al. Incorporación de la ecografía y la punción de tiroides a la actividad de endocrinología en una consulta de alta resolución. *Endocrinol Nutr.* 2010;57:43–8.
6. Suh CH, Baek JH, Lee JH, Choi YJ, Kim KW, Lee J, et al. The role of core-needle biopsy in the diagnosis of thyroid malignancy in 4580 patients with 4746 thyroid nodules: a systematic review and meta-analysis. *Endocrine.* 2016;54:315–28.

Manuel Penin

Servicio de Endocrinología y Nutrición, Complejo Hospitalario Universitario de Vigo, Vigo, Pontevedra, Spain
E-mail address: manuelpenin@wanadoo.es

2530-0180/

© 2018 SEEN and SED. Published by Elsevier España, S.L.U. All rights reserved.