Journal of Ultrasound (2018) 21:77–78
https://doi.org/10.1007/s40477-017-0278-x

LETTER TO THE EDITOR

Urgent need to apply a common language in image-guided thermal ablations

Giovanni Mauri[1] · Anna Pisani Mainini[2] · Cristian Monaco[2] · Lorenzo Carlo Pescatori[2] · Chiara De Angelis[3] · Luca Maria Sconfienza[4,5]

Received: 28 November 2017 / Accepted: 2 December 2017 / Published online: 8 January 2018

Dear Sir,

We thank Dr. Pacella for his letter [1], which pointed out some important limitations of our previous study [2]. His clarifications are extremely important in providing a clearer message to the readers.

First of all, Pacella [1] highlights the lack of a precise definition and a homogeneous way of reporting complications after thyroid ablations. Even though many efforts have been made to provide common classifications and definitions of complications after thermal ablations [3, 4], distinctly different classifications are used in the literature [5]. Particularly, the definition of pain during/after an ablation procedure might be defined as a minor complication by some authors and as a side effect by others. This discrepancy in definitions could lead to, as it did in our paper, apparent significant differences in the rates of minor complications, which are determined by the definition of pain, in the literature on laser and radiofrequency ablation. Clearly, this might convey a misleading message to the readers. On the one hand, clearly, different systems used to report complications in the original papers cannot be imputed to authors performing literature reviews; on the other hand, this fact should stimulate the scientific community to more consistently apply the provided indications in their reporting of criteria in scientific papers.

Furthermore, image-guided interventions are facing a massive increase in the treatment of thyroid diseases, expanding the field of application to hyperfunctioning nodules and malignant diseases [6–10]. Thus, it becomes even more important to precisely apply common terminology and reporting criteria to correctly report scientific evidence in this field for a wider and more appropriate clinical application.

Regarding the other points raised by Pacella…

1. The data in Tables 1 and 2 refer to the number of treated nodules, not to the number of treated patients, as a patient treated in two different sessions for two different nodules might experience complications deriving from the treatment being administered twice.
2. The data reported in Table 1 refer to the 584 cases that were analyzed. We agree that the subsequent relevant data [11] significantly modify the picture in the comparison of the two methods. Furthermore, other recent papers did not find significant differences between laser and radiofrequency approaches in the treatment of benign thyroid nodules [12, 13].
3. We thank Dr. Pacella for his table with recent data, which provides a more precise picture of the comparison between the two techniques.
4. We acknowledge the reference mistake on page 15. The correct citation would be ref 32, not ref 34, although the subsequent citation of ref 32 is correct. In the cited paper [14], the authors report a comprehensive analysis of both radiofrequency and laser techniques. We have submitted a request for erratum in this regard.

In conclusion, the data regarding different treatment modalities for benign thyroid disease have been significantly

✉ Giovanni Mauri
govanni.mauri@ieo.it

1 Divisione di Radiologia Interventistica, Istituto Europeo di Oncologia, Milan, Italy

2 Scuola di Specializzazione in Radiodiagnostica, Universita`degli Studi di Milano, Milan, Italy

3 Dipartimento di Imaging, Centro Diagnostico Italiano, Milan, Italy

4 Dipartimento di Scienze Biomediche per la Salute, Universita`degli Studi di Milano, Milan, Italy

5 Unità operativa di radiologia diagnostica per immagini e interventistica, IRCCS Istituto Ortopedico Galeazzi, Milan, Italy

modified by the recent literature, and we thank Dr. Pacella for providing more updated tables. Moreover, a strong need for a more precise application of standard terminology and reporting criteria is evident, as different definitions might determine relevant differences in the clinical data.

Compliance with ethical standards

Conflict of interest G.M: consultant for Elesta srl. The other authors declare that they have no competing interests.

Ethical approval No human or animal subjects were included in the present study.

Informed consent For this type of study, formal consent is not required.

References

1. Pacella CM (2017) Image-guided thermal ablation of benign thyroid nodules. J Ultrasound. Springer International Publishing; pp 1–3. http://link.springer.com/10.1007/s40477-017-0269-y. Accessed 16 Nov 2017
2. Mainini AP, Monaco C, Pescatori LC et al (2017) Image-guided thermal ablation of benign thyroid nodules. J Ultrasound. 20(1):11–22. http://www.ncbi.nlm.nih.gov/pubmed/28298940. Accessed 1 June 2017
3. Ahmed M, Solbiati L, Brace CL et al (2014) Image-guided tumor ablation: standardization of terminology and reporting criteria—a 10-year update. Radiology 273(1):241–260. http://www.ncbi.nlm.nih.gov/pubmed/24927329. Accessed 30 Nov 2014
4. Sacks D, McClenny TE, Cardella JF, Lewis CA (2003) Society of interventional radiology clinical practice guidelines. J Vasc Interv Radiol 14(9 Pt 2):S199–S202. http://www.ncbi.nlm.nih.gov/pubmed/14514818. Accessed 16 Sept 2014
5. Kang TW, Rhim H, Lee MW, Kim Y, Choi D, Lim HK (2017) Terminology and reporting criteria for radiofrequency ablation of tumors in the scientific literature: systematic review of compliance with reporting standards. Korean J Radiol 15(1):95. http://www.ncbi.nlm.nih.gov/pubmed/24497798. Accessed 26 Nov 2017
6. Chianelli M, Bizzarri G, Todino V et al (2014) Laser ablation and 131-iodine: a 24-month pilot study of combined treatment for large toxic nodular goiter. J Clin Endocrinol Metab 99(7):E1283–E1286. http://www.ncbi.nlm.nih.gov/pubmed/24684455. Accessed 24 Dec 2014
7. Mauri G, Cova L, Ierace T et al (2016) Treatment of metastatic lymph nodes in the neck from papillary thyroid carcinoma with percutaneous laser ablation. Cardiovasc Interv Radiol 39(7):1023–1030. http://www.ncbi.nlm.nih.gov/pubmed/26911732. Accessed 21 Oct 2016
8. Mauri G, Cova L, Tondolo T et al (2013) Percutaneous laser ablation of metastatic lymph nodes in the neck from papillary thyroid carcinoma: preliminary results. J Clin Endocrinol Metab 98(7):E1203–E1207. http://www.ncbi.nlm.nih.gov/pubmed/23666969. Accessed 28 June 2014
9. Mauri G, Sconfienza LM (2017) Percutaneous ablation holds the potential to substitute for surgery as first choice treatment for symptomatic benign thyroid nodules. Int J Hyperth 33(3):301–302. http://www.ncbi.nlm.nih.gov/pubmed/27825274. Accessed 1 June 2017
10. Mauri G, Sconfienza LM (2017) Image-guided thermal ablation might be a way to compensate for image deriving cancer overdiagnosis. Int J Hyperth 33(4):489–490. http://www.ncbi.nlm.nih.gov/pubmed/27866424. Accessed 26 Nov 2017
11. Pacella CM, Mauri G, Achille G et al (2015) Outcomes and risk factors for complications of laser ablation for thyroid nodules: a multicenter study on 1531 patients. J Clin Endocrinol Metab 100(10):3903–3910. http://www.ncbi.nlm.nih.gov/pubmed/26274342. Accessed 11 Oct 2015
12. Mauri G, Cova L, Monaco CG et al (2016) Benign thyroid nodules treatment using percutaneous laser ablation (PLA) and radiofrequency ablation (RFA). Int J Hyperth 1–17. http://www.ncbi.nlm.nih.gov/pubmed/27701923. Accessed 20 Oct 2016
13. Pacella CM, Mauri G, Cesareo R et al (2017) A comparison of laser with radiofrequency ablation for the treatment of benign thyroid nodules: a propensity score matching analysis. Int J Hyperth 1–9. https://www.tandfonline.com/doi/full/10.1080/02656736.2017.1332395. Accessed 3 Oct 2017
14. Baek JH, Lee JH, Valcavi R, Pacella CM, Rhim H, Na DG (2011) Thermal ablation for benign thyroid nodules: radiofrequency and laser. Korean J Radiol 12(5):525. http://www.ncbi.nlm.nih.gov/pubmed/21927553. Accessed 26 Nov 2017