

Re: Clinical significance of isolated macrocalcifications detected by ultrasonography

ULTRA SONO GRAPHY

Dong Gyu Na^{1,2}

¹Department of Radiology, GangNeung Asan Hospital, Gangneung; ²Department of Radiology, Human Medical Imaging and Intervention Center, Seoul, Korea

We appreciate the valuable comments on our manuscript.

Isolated macrocalcifications were initially described as a benign ultrasonographic (US) pattern of a thyroid nodule in the French Thyroid Imaging Reporting and Data System [1] and defined as macrocalcifications with no solid component or vascular signal [2]. Subsequently, recent studies [3,4] have demonstrated that isolated macrocalcifications have an intermediate malignancy risk, are mostly found in papillary carcinomas, and that malignant tumors with isolated macrocalcifications may show aggressive behavior, such as advanced local invasion or macroscopic cervical lymph node metastasis.

We agree that the term "isolated macrocalcification" may not be intuitive for "a calcified nodule with posterior acoustic shadowing in which any soft tissue component is not identified due to the dense posterior acoustic shadowing on US." Furthermore, we concur that the suggested terms ("totally calcified nodule" or "macrocalcified nodule without a solid component") are simple and more intuitive for understanding the US characteristics of isolated macrocalcifications. However, we need more consensus on the appropriate descriptors for US patterns of calcified nodules, and we therefore hope that a standardized terminology of isolated macrocalcifications will be established through the ongoing International Thyroid Nodule Ultrasound Working Group, in which the majority of professional thyroid societies are involved, including the Korean Society of Thyroid Radiology (KSThR).

A previous study [3] reported that small thyroid cancers with isolated macrocalcifications may show the aggressive behavior of macroscopic lymph node metastasis. Therefore, even though the KSThR guideline currently recommends biopsy for isolated macrocalcifications only when the nodule size is equal to or larger than 1 cm, US monitoring of small isolated macrocalcifications may be necessary. Although our study revealed that the majority of isolated macrocalcifications are composed of coarse central calcifications [5], the histopathologic features of isolated macrocalcifications have only been investigated to a limited extent. We agree that the investigation of histopathologic features using core-needle biopsy specimen would be useful for identifying the characteristics of benign and malignant isolated macrocalcifications, which will be another step towards understanding the nature of isolated macrocalcifications in the thyroid gland.

ORCID: Dong Gyu Na: https://orcid.org/0000-0001-6422-1652

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

LETTER

https://doi.org/10.14366/usg.20097 pISSN: 2288-5919 • eISSN: 2288-5943 Ultrasonography 2020;39:409-410

Received: June 28, 2020 Accepted: July 19, 2020

Correspondence to:

Dong Gyu Na, MD, Department of Radiology, GangNeung Asan Hospital, 38 Bangdong-gil, Gangneung 25440, Korea

Tel. +82-33-610-4310 Fax. +82-33-610-3490 E-mail: nndgna@gmail.com

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/4.0/) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Copyright © 2020 Korean Society of Ultrasound in Medicine (KSUM)



How to cite this article:

Na DG. Re: Clinical significance of isolated macrocalcifications detected by ultrasonography. Ultrasonography. 2020 Oct;39(4):409-410.

References

- Russ G, Royer B, Bigorgne C, Rouxel A, Bienvenu-Perrard M, Leenhardt L. Prospective evaluation of thyroid imaging reporting and data system on 4550 nodules with and without elastography. Eur J Endocrinol 2013;168:649-655.
- 2. Russ G. Risk stratification of thyroid nodules on ultrasonography with the French TI-RADS: description and reflections. Ultrasonography 2016;35:25-38.
- 3. Na DG, Kim DS, Kim SJ, Ryoo JW, Jung SL. Thyroid nodules with

- isolated macrocalcification: malignancy risk and diagnostic efficacy of fine-needle aspiration and core needle biopsy. Ultrasonography 2016;35:212-219.
- Gwon HY, Na DG, Noh BJ, Paik W, Yoon SJ, Choi SJ, et al. Thyroid nodules with isolated macrocalcifications: malignancy risk of isolated macrocalcifications and postoperative risk stratification of malignant tumors manifesting as isolated macrocalcifications. Korean J Radiol 2020;21:605-613.
- 5. Paik W, Na DG, Gwon HY, Kim J. CT features of thyroid nodules with isolated macrocalcifications detected by ultrasonography. Ultrasonography 2020;39:130-136.