



Clinical significance of isolated macrocalcifications detected by ultrasonography

ULTRASONOGRAPHY

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LETTER

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We read with great interest the article published by Paik et al. entitled "CT features of thyroid nodules with isolated macrocalcifications detected by ultrasonography" in *Ultrasonography* [1]. The authors evaluated isolated macrocalcifications (IMs) in the thyroid gland using ultrasonography (US) and computed tomography (CT). They defined IMs as isolated, calcified thyroid nodules with complete posterior acoustic shadowing in which no solid component was obviously identified within the nodules on US [1]. Their concern about IMs was that previous studies have either not clearly defined IMs [2] or categorized them incorrectly (as rim or peripheral calcifications) [3,4]. Regarding this issue, the authors clearly showed the nature of IMs on CT. Among the 20 IMs, 90% (18 of 20) showed central calcification and 10% (2 of 20) showed peripheral calcifications. Therefore, the authors argued that thyroid nodules with IMs detected on US should not be classified as rim or peripheral calcifications. The risk of malignancy of IMs seems to be 10%–20% [5]. The classification of the US lexicon plays an important role in the risk stratification of thyroid nodules for malignancy [1]. IMs are categorized as intermediate suspicion nodules in the Korean Thyroid Imaging Reporting and Data System (K-TIRADS) [6] and as moderately suspicious nodules in the American College of Radiology Thyroid Imaging Reporting and Data System (ACR TI-RADS) [7]. However, this has not been specified in the risk stratification of thyroid nodules in other thyroid society guidelines [1].

We appreciate the valuable results shown by the authors in this study. The results are very interesting and clinically useful. However, we have several questions and comments. First, regarding terminology, the word "isolated" is not very intuitive. We suggest alternative terms, such as "totally calcified nodule" or "macrocalcified nodule without a solid component." However, we recognize that these terms might not fully represent the nature of IMs. Second, we are concerned about serial changes of IMs. As the authors noted that a completely calcified nodule might increase the risk of a nondiagnostic fine-needle aspiration (FNA) biopsy result, regular follow-ups are especially important. Third, as core-needle biopsy (CNB) has shown a higher diagnostic efficacy than FNA in thyroid nodules with IMs on US [8], we believe that the study would have been more meaningful if it had included pathologic results from CNB of these thyroid nodules. Finally, regarding the relatively high nondiagnostic and/or biopsy failure rate of IMs, the malignancy risk of IMs may be higher than has been previously reported. In conclusion, the findings of this study suggest that IMs are clinically significant. We appreciate these observations and propose the need to develop more intuitive terminology for IMs and to evaluate their serial changes on US.

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Conflict of Interest

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

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