



Technical issues in ultrasound-guided ethanol ablation for thyroid lesions

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We read with great interest the article published by Cho et al. entitled "Ultrasound-guided ethanol ablation for cystic thyroid nodules: effectiveness of small amounts of ethanol in a single session" [1]. In this article, the authors evaluated whether low-dose (less than 5 mL) ethanol injections were effective for treating cystic and predominantly cystic thyroid nodules. All patients were treated by single-session ethanol ablation (EA).

The authors used a low-dose technique and achieved excellent treatment results with a low complication rate. The methodology of this study is sound and followed the recommendations of the 2018 Korean EA guideline [2]. Their data are important to support future revised EA guidelines; however, there are several technical issues that need to be considered. First, the terminology of "low-dose" (less than 5 mL of ethanol) is vague. The authors used various amounts of ethanol, ranging from 1 to 5 mL. Given the wide range of included thyroid lesions (range, 4.4 to 77.2 mL), a future validation study should be conducted to provide clear guidance on the precise amount of ethanol that should be used. Considering the very low complication rate of EA, even when a dose of more than 5 mL is used, the advantage of low-dose EA is questionable. We would therefore ask, what is the advantage of a low dose in real-world practice?

Second, the results of this study [1] showed that volume reductions after EA were much lower in predominantly cystic nodules than in cystic lesions (65.1% vs. 90.1%). However, in previous studies, EA achieved somewhat higher volume reduction rates for predominantly cystic nodules (74.9%–82.4%) [3]. Therefore, the use of a low dose of ethanol could be related to insufficient volume reduction. Moreover, the authors performed complete aspiration of the injected ethanol, whereas Park et al. [4] reported a higher therapeutic success rate in a retention group than in an aspiration group (82.5% vs. 68.8%), especially in predominantly cystic nodules. Therefore, it is necessary to conduct further studies to determine the appropriate amount of ethanol and to compare the two EA techniques (ethanol aspiration and ethanol retention) for predominantly cystic thyroid nodules. Furthermore, the ethanol retention times in the study varied substantially (range, 0.9 to 13.0 minutes) [1], which was an inevitable limitation of its retrospective design.

Finally, the follow-up period in this study was rather short (mean, 10.5 months) with considerable variation (1–66 months). Suh et al. [5] suggested that the recurrence rate after EA is much higher with a longer follow-up period. Therefore, long-term results are necessary to justify the conclusions of this study.

In conclusion, Cho et al. [1] reported a low-dose ethanol method for the treatment of symptomatic cystic and predominantly cystic thyroid nodules. Although the results were acceptable, the use of a low dose in patients with predominantly cystic thyroid nodules should be carefully considered.

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Conflict of Interest

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

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