Reply to Drs. Qu and Gao

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To the Editor,

We have read with interest the comment from Drs. Qu and Gao in reaction to our study about the effectiveness of low activity versus high activity radioiodine ablation after thyroidectomy [1] and we would like to reply to their comments about some potential biases of our meta-analysis.

The authors discussed two potential biases of the meta-analysis. The first one was the exclusion of potentially eligible randomized trials. The purpose of our meta-analysis was to compare the effectiveness of low versus high radioiodine activity. We decided to define the smallest observed effective activity for ablation as low activity, namely 1100 MBq [2], which is also stated in clinical guidelines as the minimum activity to achieve successful ablation [3]. This is the reason why we excluded the three randomized trials that the authors mentioned [4–6] since they used higher activity than 1100 MBq (1850 MBq) as low activity.

The second potential bias was the issue of between-study heterogeneity. It is true that between-study heterogeneity exists in our main meta-analysis (1100 MBq vs. 3700 MBq). However, we have chosen to perform the meta-analysis by using the random-effects model, a well-defined statistical approach to ensure the validity of the results of a meta-analysis in case of between-study heterogeneity [7]. Additionally, we have tried to explore the between-study heterogeneity by using pre-specified subgroup analysis based on the method for TSH stimulation. The results of the subgroup analysis indicate that the method of TSH stimulation is a factor of between-study heterogeneity. However, the main result of the meta-analysis, namely the comparable effectiveness of low versus high radioiodine activity, remained unchanged irrespective of the method of TSH stimulation.

In conclusion, the results of the meta-analysis should be considered reliable since we included all the randomized evidence according to inclusion and exclusion criteria and additionally we managed the observed heterogeneity with adequate and well-defined statistical approaches.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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