Objective

● Most thyroid nodules are benign therefore, they are commonly only monitored.
● Only a few studies are available on the natural progression/regression of benign thyroid nodules, and large-scale studies on the subject are nonexistent.
● So we identify factors that affect the size of benign thyroid nodules and to predict the potential nodule size through a model.

Methods

● Between January 2001 and December 2011, 2,469 benign thyroid nodules (1,564 patients) were diagnosed through fine needle aspiration.
● After excluding 505 nodules for which either the volume was unknown or percutaneous ethanol injection or radiofrequency ablation had been performed,
● 1,964 benign thyroid nodules (1,261 patients) were selected for the retrospective analysis in our study.

Results

● The nodules with increased size overtime involved a longer follow-up period than the nodules with decreased size.
● The proportions of females and cystic portion were relatively high.
● For the thyroid nodules with increased size, we analyzed the potential influencing factors.
● Our analysis results indicate that larger nodule volume, extended follow-up period, and high cystic proportion were all positively associated with increased nodule size.

Conclusions

● Controlling for all other potential variables, the thyroid nodules tended to grow at a rate of approximately 0.034 cm² per year in the group with continually growing nodules.
● The model used in our study may offer helpful insight in determining an optimal treatment schedule for benign thyroid nodules.

References