**Supplementary Data**

**S1. Anecdotal Reports of Cases with Malignant Nodules with Benign FNAs**

Three nodules of three patients initially reported benign on FNA were malignant on final pathology in this cohort. One patient presented two nodules on FNA: a 1.2 cm nodule in the right middle lobe with AUS/FLUS cytology, and a 0.3 cm nodule in the left middle lobe with benign cytology. Final pathology confirmed fvPTC in the 0.3 cm nodule. The second patient presented a 1.42 cm nodule in the left middle lobe with benign cytology and ultimately revealed an additional lesion in the right lobe following total thyroidectomy, both found to be papillary microcarcinomas. The third patient underwent FNA of three nodules in the left lobe, confirming benign FNA. Following thyroid lobectomy for multinodular goiter, one 0.7 cm nodule in the upper left lobe revealed macrofollicular variant of PTC (mfvPTC). This was the only case of mfvPTC in this cohort.