An elevated level of TSH might be predictive of differentiated thyroid cancer

Suppression therapy of thyreostimulin (TSH) using thyroid hormones improves survival of subjects operated for differentiated thyroid cancer. The TSH level might be different depending on the type of nodule. The objective of this study was to compare retrospectively the TSH level between two groups of subjects who underwent total thyroidectomy for a nodule, matched on sex, ethnicity, age and biological method of TSH measurement, one whose final histology was benign and one malignant. There was no significant difference between the two groups in terms of age, sex, family history of thyroid disease or thyroid autoimmunity. The subjects, whose final histology was malignant, had a mean TSH level significantly higher than subjects with benign disease (1.55 mU/l versus 0.96 mU/l, P=0.003). Cancer risk was greater when the TSH was in the upper tertile of normal range. There was no correlation between the risk of thyroid cancer and age, sex, family history of thyroid disease, or menopausal status. The relative risk of having thyroid carcinoma was higher when the margins of nodules were blurred or in the presence of microcalcifications. These data confirm a trend toward baseline values of TSH higher in subjects with a thyroid-differentiated cancer. However, we could not define a preoperative threshold that would reliably determine the malignant or benign nature of the nodule.