Thyroid function screening in first and second-degree healthy asymptomatic relatives of Hashimoto’s thyroiditis patients

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INTRODUCTION

The current guidelines have insufficient evidence to support the screening of asymptomatic, nonpregnant family members of patients with Hashimoto’s thyroiditis, with no consensus to determine whether screening would reduce cardiovascular disease or related future morbidity and mortality.

AIM

The primary objective was thyroid function screening for asymptomatic healthy FDRs and second-degree relatives (SDRs) of patients with Hashimoto’s thyroiditis. The secondary objective is the prediction of hypothyroid and hyperthyroid events in the next five years.

METHODS

A prospective evaluation of thyroid function of 346 healthy asymptomatic relatives of 97 patients with Hashimoto’s thyroiditis over 27 months, after exclusion of any individual with any condition which could interfere with thyroid function. They were evaluated by TSH and thyroid ultrasound at enrollment. All enrolled individuals were scheduled for re-testing by TSH after three months to confirm the final diagnosis. We scheduled additional TSH testing at six, 12, and 18 months. The ultrasound examination was scheduled at six, 12, and 18 months. Thyroid ultrasound was done to evaluate any single or multiple nodules, and any suggestive ultrasound features of possible Hashimoto’s thyroiditis which include (diffusely enlarged thyroid gland with heterogeneous echotexture, galea pattern or micronodular appearance (1-6 mm), and color Doppler study to show the patterns of the vascular flow).

Individuals with abnormal TSH levels were subjected to complementary thyroid function investigations, but only the BMI had any significant association or relationship with the smoker women of different ages and BMIs. Still, neither (n=268). The majority were married adult non-smoker women of different ages and BMIs. The overall median TSH score at the end of the study for these individuals was low (5.50±0.44). It represented the five-year prediction for future hypothyroid or hyperthyroid events. Further actions were planned for the management of 19 individuals with a low TSH and high score between (8-13) by recommending annual screening for thyroid status. No further action for the individuals with low TSH score was planned, as shown in Table 4.

CONCLUSIONS

The thyroid function screening and thyroid autoantibodies in the asymptomatic healthy relatives of patients with Hashimoto’s thyroiditis could help to diagnose an overt thyroid dysfunction in about one-third of them. The thyroid function test and TgA score could predict the five-year risk of developing apparent dysfunction status. The familial clustering of thyroid disease was ensured in more than 43% of high-risk relatives.

BIBLIOGRAPHY

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