Sublaboratory Hypothyroidism in Egyptian Young Adult Females with Normal TSH Levels; What to do? A Practical Real Life Experience

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It's has been recently noted that he definition itself of subclinical hyperthyroidism and, therefore, the therapeutic approach to its patients remains undefined and controversial [1]. In my opinion the same controversy applies to subclinical hypothyroidism which reported to occur in 3% to 8% of the general population and has recently been associated with increased carotid intima-media thickness and is diagnosed when peripheral thyroid hormone levels are within normal reference laboratory range but serum thyroid-stimulating hormone (TSH) levels are mildly elevated [2,3]. Further, symptoms and signs of overt hypothyroidism were reported to be not reliable for diagnosing hypothyroidism and earlier diagnosis through screening has an advantage over diagnosis by clinical presentation [4].

In my clinical practice I’ve suspected tens of adult female patients with symptoms and signs of hypothyroidism e.g. hair loss, unexplainable weight gain, chronic constipation, cold intolerance, easy fatigability and while most of those patients were proved to have hypothyroidism after checking TSH, Free T3, and Free T4 laboratory tests; many of those patients had also "normal" laboratory levels of these hormones and have suffered from previous multiple different diagnoses; those patients I’ve referred to as suffering from sublaboratory hypothyroidism; an add on new classification that I believe should be addressed and studied further and may help to improve our knowledge about the thyroid function and disorders to help our patients more effectively.

I’ve started to prescribe low levels of levothyroxine to those patients suffering from sublaboratory hypothyroidism, aged between 30 and 50 years, and all of them experienced marked improvement of hypothyroidism symptoms and signs. Upon regular laboratory tests of thyroid function every 3 to 6 months, some patients needed to increase the prescribed dose to maintain the favorable clinical improvement and, interestingly, in some cases the laboratory evidence of hypothyroidism has become overt after initiating the treatment confirming the initial diagnosis. It was previously shown that decreasing the upper limit of the TSH reference range to 3.0 mIU/L results in more than a 4-fold increase in diagnosis of hypothyroidism among patients without history of thyroid disease seen in a tertiary medical center [2].

However, it always must be remembered that treatment with levothyroxine is associated with significantly increased mortality in individuals 65years or older with subclinical hypothyroidism and TSH<10 [5], and I personally don’t recommend to prescribe levothyroxine to this high risk group of patients.

References