Reply to the article “Letter for “Prevalences of subclinical and overt hypothyroidism with universal screening in early pregnancy””

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Dear Editor,

We thank Dr. Sel and colleagues for the interest in our paper “Prevalences of subclinical and overt hypothyroidism with universal screening in early pregnancy”.

In his letter to editor, Dr. Sel notes his concerns about the methodology of our study.

As we mentioned in our paper, this is an epidemiological study. We primarily aimed to reveal the prevalence of subclinical and overt hypothyroidism among our population during pregnancy, according to the recommendations of ATA (2011) and ES (2012). Then, we further analysed our study group using ATA (2017) threshold of 4.0 mIU/L for TSH, since we do not have pregnancy-specific population TSH reference ranges in Turkey.

There is substantial variation between different populations for the pregnancy-specific TSH reference ranges. We consider that the percentiles which we have calculated, could make a projection about TSH distribution among Turkish population, during the first trimester of pregnancy. We agree with Dr. Sel that we did not analyse perinatal outcomes and/or impact of thyroid hormone replacement therapy among our cohort. We have already mentioned this as a limitation of our study.

International societies recommend that the reference intervals of TSH and FT4 should be based on the 2.5th and

97.5th percentiles of the respective population with an optimal iodine intake. “Normal” for a laboratory test is statistically usually defined as test values which fall within two standard deviations of the mean, which includes 95% of all results. In our study group, the prevalences of subclinical hypothyroidism and isolated hypothyroxinaemia—following diagnostic criteria of the ATA 2011—were 20.3% and 0.95%, respectively; which is very high when compared with the literature. In other words, one in four of pregnant women attending their first antenatal visit were candidates for thyroid hormone replacement. Furthermore, we also presented the distribution of first trimester TSH and FT4 values in our study group. The 2.5th, 5th, 95th and 97.5th percentiles for first trimester TSH levels were 0.21, 0.4, 3.6 and 4.07 mIU/L, respectively. So we consider that, ATA (2017) cut off is more suitable for our population.

Compliance with ethical standards

Conflict of interest The authors report no conflict of interest.

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