

PE1463/JJJJ

Thyroid UK Letter of 17 October 2016

Further to our submission of 21st September 2016 in response to the Scottish Government letter of 2nd August 2016, we would like to make the Petitions Committee aware of a new piece of evidence.

A new research paper entitled, *“Is a Normal TSH Synonymous with “Euthyroidism” in Levothyroxine Monotherapy?”* has been published in the Journal of Clinical Endocrinology and Metabolism. The authors of this study, Sarah J. Peterson Ph.D., Elizabeth A. McAninch M.D., and Antonio C. Bianco M.D., wanted to see if levothyroxine, the standard treatment for primary hypothyroidism, at doses that normalised the serum TSH, was associated with normal markers of thyroid status.

They looked at data from the US National Health and Nutrition Examination Survey (NHANES). 9981 participants with normal TSH levels, 469 of whom were treated with levothyroxine.

The researchers found that participants using levothyroxine alone had higher FT4 levels (thyroxine) and lower TSH levels but lower T3 levels than healthy people which meant 15-20% of the participants had lower serum T3:T4 ratios.

They concluded that participants using levothyroxine alone exhibited lower serum

T3 - T4 ratios and differed in 12 out of 52 objective and subjective measures (higher BMI despite reports of consuming less calories per day; more likely to be taking beta blockers, statins and anti-depressants and reported lower total metabolic equivalents.)

There were more patients on levothyroxine stating that their physical and mental health was “not good” compared to healthy controls and they were more likely to report being inactive due to physical or mental health and have confusion/memory issues.

In our opinion, this study shows clearly that some patients’ symptoms are not resolved on levothyroxine alone and need the addition of T3. Dr John Midgley, Prof Rudolph Hoermann and Dr Johannes Dietrich have written several studies on this topic and Thyroid UK feels that a meeting including at least Dr John Midgley would be very beneficial to the Scottish Petitions Committee and help them understand why some patients have this problem.

Please, let’s do something about this rather than continue going round in circles.