

Acupuncture's Effectiveness at Treating
Subclinical Hypothyroid Disease via the HPA/HPT Axis:
A Multiple Case Series

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Abstract

Subclinical hypothyroid disease (SHypo) is defined as having serum thyroid-stimulating hormone (TSH) concentration above the normal reference range while serum free thyroxine (FT4) and free triiodothyronine (FT3) are within reference range. It is estimated that 4-10% of the general population has subclinical hypothyroidism, increasing to 20% in women over 60 years of age. The current treatment recommendation for SHypo with TSH levels between 3-5 mIU/L is to monitor levels every 6-12 months. Studies have shown that levothyroxine is not effective for this TSH group. Based on Hans Selye's general adaptation theory (GAS), it is known that acute and chronic stress can affect thyroid function via the hypothalamus-pituitary-adrenal (HPA) and the hypothalamus-pituitary-thyroid (HPT) axes. Acupuncture can reduce the body's stress response, and therefore should improve thyroid function. This research was conducted to determine if acupuncture is a viable treatment option for SHypo.

Two cases were studied for replication. The female patients, aged 34 and 44, received twelve Japanese Meridian acupuncture constitutional treatments, one per week. Serum TSH, FT4, FT3, salivary cortisol, Perceived Stress Scale – 10 (PSS-10) were measured at pretreatment, mid-treatment and posttreatment. Number of hypothyroid symptoms present (Zulewski index) were assessed prior to each treatment. All measurements were analyzed for changes over time and cross-case comparison.

Both patients had decreases in TSH and number of hypothyroid symptoms present, increases in total cortisol load and morning diurnal cortisol rhythm. Both patients reported improvements in bowel movements and menstruation. A potential adverse

reaction occurred in one patient at mid-treatment with the exacerbation of her anxiety and depression.

From this study it can be theorized that acupuncture is a viable treatment option for SHypo, however more rigorous larger scale research studies need to be conducted to validate and extend these findings.

Keywords: subclinical hypothyroid, HPA, HPT, salivary cortisol, TSH, stress and thyroid