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**THYROID STATUS AND ENDOTHELIAL DYSFUNCTION IN HEMODIALYSIS PATIENTS:**

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Thyroid dysfunction is a highly prevalent complication in hemodialysis (HD) patients. While hypothyroidism has been associated with endothelial dysfunction in the general population, associations of serum thyrotropin (TSH) with endothelial function in HD patients has not been well-studied.

Among 99 patients from the AIONID trial, we examined associations of TSH with endothelial function ascertained by digital thermal monitoring (DTM), which is based on the principle that changes in fingertip temperature (temp) during and after an ischemic stimulus reflect blood flow changes. We examined two DTM indices: 1) Temp Rebound (TR) and 2) Area Under the Temp Curve (TMP-AUC), with adjustments to account for variations in testing conditions and patient characteristics. Associations of TSH with worse adjusted TR and TMP-AUC (defined as <median of observed values) were estimated by logistic regression.

In case-mix analyses, higher TSH levels (highest three quartiles vs. lowest quartile) were associated with lower (worse) TR and TMP-AUC: ORs (95%CI) 2.85 (1.08-7.57) and 2.79 (1.06-7.38), respectively.

In HD patients higher TSH levels were associated with worse endothelial function. Further studies are needed to determine if thyroid hormone supplementation improves endothelial function this population.

