Triiodothyronine reduces vascular dysfunction associated with hypertension by attenuating PKG/VASP signaling.

Maria Alicia Carrillo-Sepulveda, Anjali Panackal, Renjith Maracheril, Nicole Maddie, Mitul N. Patel, Kaie Ojamaa, Olga V. Savinova, A. Martin Gerdes

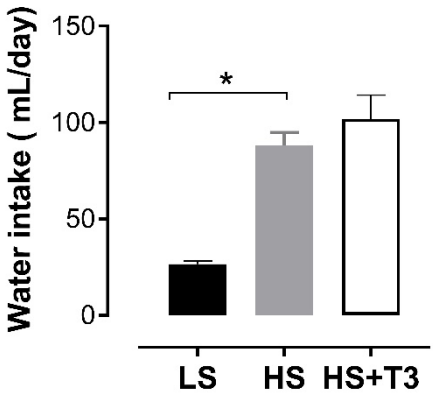
The Journal of Pharmacology and Experimental Therapeutics

Supplemental Methods

Animals and Study Design

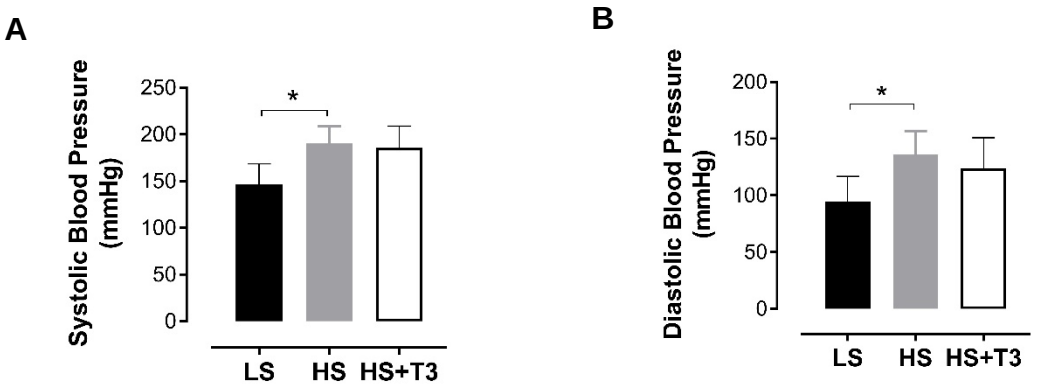
Female Dahl SS rats assigned to a high salt diet (n=7-8/per group) containing 8% NaCl (HS group, Research Diets #D10101401, New Brunswick, NJ) were randomly allocated in two experimental sub-groups at 11 weeks of age. One group received regular drinking water (HS group) and another T3 supplemented water (5μg/Kg/day) for four weeks. The efficacy of T3 supplementation at the selected dose and delivery method was previously established by our group (Weltman et al., 2013; Weltman et al., 2015; Zhang et al., 2018). Water intake was measured at baseline for HS diet (8 weeks of age), and bi-weekly thereafter initiation of HS protocol.

Supplemental Figure 1



Supplemental Figure 1. T3 treatment did not alter water intake in the Dahl SS rats fed a high salt diet (HS Group). HS Group were treated with T3 (5μg/Kg/day) for four weeks; water intake was measured three weeks after initiation of T3 treatment. Data are expressed as means ± SEM; n=4 in the low salt group (LS group), n=8 in the HS group, and n=7 in the HS+T3 group. *P<0.0001 compared with LS group.

Supplemental Figure 2



Supplemental Figure 2. T3 treatment did not decrease blood pressure in Dahl SS rats fed a high salt diet (HS Group). HS Group was treated with T3 (5μg/Kg/day) for four weeks and systolic (A) and diastolic (B) blood pressure was measured by tail-cuff method. Data are expressed as means ± SEM; n=9 per group. *P<0.005 compared with the low salt group (LS group).

Supplemental References

Weltman NY, Ojamaa K, Savinova OV, Chen YF, Schlenker EH, Zucchi R, Saba A, Colligiani D, Pol CJ and Gerdes AM (2013) Restoration of cardiac tissue thyroid hormone status in experimental hypothyroidism: a dose-response study in female rats. *Endocrinology* **154**:2542-2552.

Weltman NY, Pol CJ, Zhang Y, Wang Y, Koder A, Raza S, Zucchi R, Saba A, Colligiani D and Gerdes AM (2015) Long-term physiological T3 supplementation in

hypertensive heart disease in rats. *American journal of physiology Heart and circulatory physiology* **309**:H1059-1065.

Zhang K, Tang YD, Zhang Y, Ojamaa K, Li Y, Saini AS, Carrillo-Sepulveda MA, Rajagopalan V and Gerdes AM (2018) Comparison of Therapeutic Triiodothyronine Versus Metoprolol in the Treatment of Myocardial Infarction in Rats. *Thyroid : official journal of the American Thyroid Association* **28**:799-810.