

Plasma uric acid lowering tied to drop in systolic BP in T1DM

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through larger increases in efferent arteriolar resistance (R_E) and glomerular hydrostatic pressure, with no impact on the renin angiotensin aldosterone system (RAAS).

"FBX lowered systolic BP and modulated the renal R_E responses to hyperglycemia, but without impacting the RAAS or NO, suggesting that PUA may augment other hemodynamic or inflammatory mechanisms that control the renal response to hyperglycemia at the efferent arteriole," the authors write. "Ongoing outcome trials will determine cardiorenal outcomes of PUA lowering in patients with T1D."

Takeda provided the study medications free of charge.

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

(HealthDay)—Lowering of plasma uric acid (PUA) with febuxostat (FBX) is associated with a modest reduction in systolic blood pressure (BP) in patients with type 1 diabetes mellitus (T1DM), according to a study published online April 13 in *Diabetes*.

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Yuliya Lytvyn, Ph.D., from the University of Toronto, and colleagues examined the [impact](#) of PUA lowering on renal and vascular function in 49 [patients](#) with uncomplicated T1DM. Participants were assessed under eu- and hyperglycemic conditions at baseline and after PUA lowering with FBX for eight weeks. Twenty-four healthy controls were assessed under normoglycemic conditions.

The researchers found that FBX had a modest impact in terms of lowering systolic BP in patients with T1DM (112 ± 10 to 109 ± 9 mm Hg; $P = 0.049$), with no impact on arterial stiffness, flow and nitroglycerin mediated dilation, or urinary nitric oxide (NO). In patients with T1DM, FBX enhanced the filtration fraction response to hyperglycemia

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