# Febuxostat attenuates the induction of vascular cell adhesion protein 1 by TNF-α in Human Umbilical Vein Endothelial Cells.

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In CARES clinical trial, febuxostat, a non purine xanthine oxidase inhibitor, was proved non-inferiority the rate of adverse cardiovascular events in patients with gout and major cardiovascular coexisting conditions. In this study, we evaluated the effect of febuxostat on the vascular cell adhesion protein 1 (VCAM-1) induction cultured Human Umbilical Vein Endothelial Cells (HUVEC) were exposed to 24-hour TNF-α (10 ng/mL) treatment. Febuxostat (0.1-100 mM) or solvent was added to the bath medium 20 minutes before TNF-α treatment. VCAM-1 protein levels in HUVEC increased after 24 hours TNF-atreatment ($n = 4$). Febuxostat significantly suppressed VCAM-1 induced by treatment with TNF-a in a dose-dependent manner ($p < 0.05$, $n = 4$). This finding suggests that treatment with Febuxostat on cardiovascular events may associate with the protection for the infiltration of lymphocyte or monocyte through the VCAM-1 induction in the inflamed-endothelial cells such as arterial sclerosis.