

Supplementary Material

Endothelial Nlrp3 Inflammasome Activation Associated with Lysosomal Destabilization during Coronary Arteritis

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Running title: Inflammasomes and Lysosome Dysfunction in Coronary Arteritis

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Supplementary Figure S1

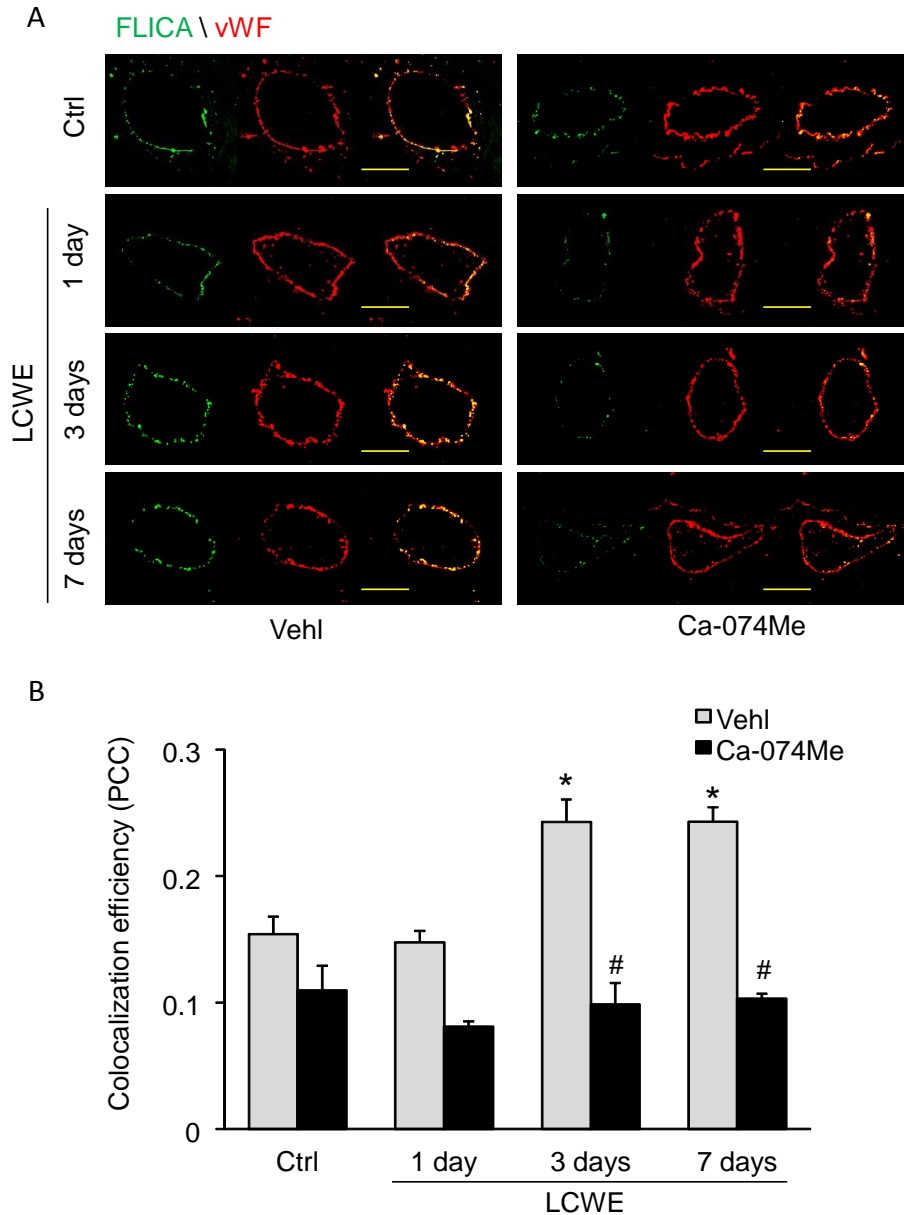


Figure S1. Effects of cathepsin B inhibition on LCWE-induced early activation of inflammasomes in coronary arteries of mice. Mice were intraperitoneally treated with LCWE (500 μ g for 1, 3 and 7 days) with or without cathepsin B inhibitor Ca-074Me (5mg/kg). (A) Frozen sections of mouse hearts were stained with FLICA, a green fluorescent probe specific for active caspase-1, and Alexa555-conjugated antibodies against an endothelium marker vWF. The merged images displayed yellow dots or patches indicating the colocalization of FLICA (green) with vWF (red). Scale bar = 50 μ m. (B) Summarized data showing area percentage of the endothelium positive for VCAM-1 staining in coronary arteries. N = 5 mice per group. *P < 0.05 vs. Ctrl; #P < 0.05 Ca-074Me vs. vehl.

Supplementary Figure S2

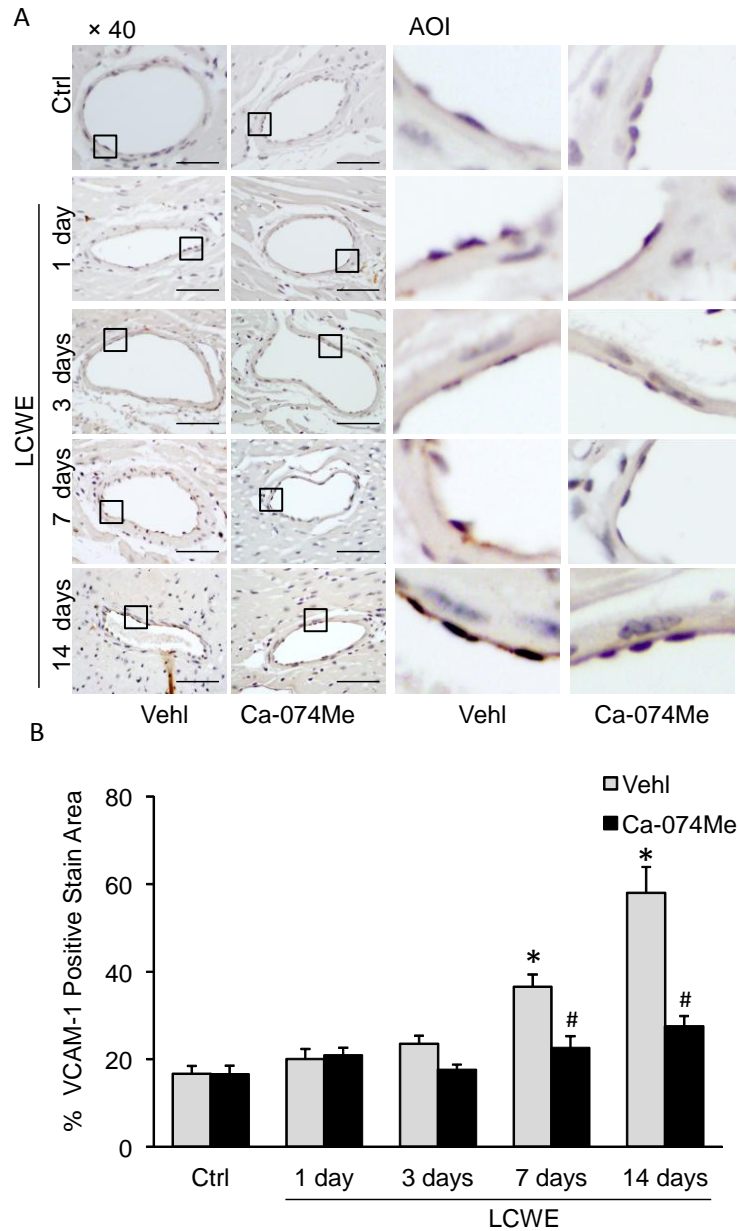


Figure S2. Effects of cathepsin B inhibition on LCWE-induced VCAM-1 expression in coronary arterial endothelium of mice. Mice were intraperitoneally treated with LCWE (500 μ g for 1, 3, 7 and 14 days) with or without cathepsin B inhibitor Ca-074Me (5mg/kg). (A) IHC staining showing the expression of VCAM-1 in the endothelium of coronary arteries. Enlarged images of area of interest (AOI) are indicated with a square. Scale bar: 50 μ m. (B) Summarized data showing area percentage of the endothelium positive for VCAM-1 staining in coronary arteries. N = 5 mice per group. *P < 0.05 vs. Ctrl; #P < 0.05 Ca-074Me vs. vehl.

Supplementary Figure S3

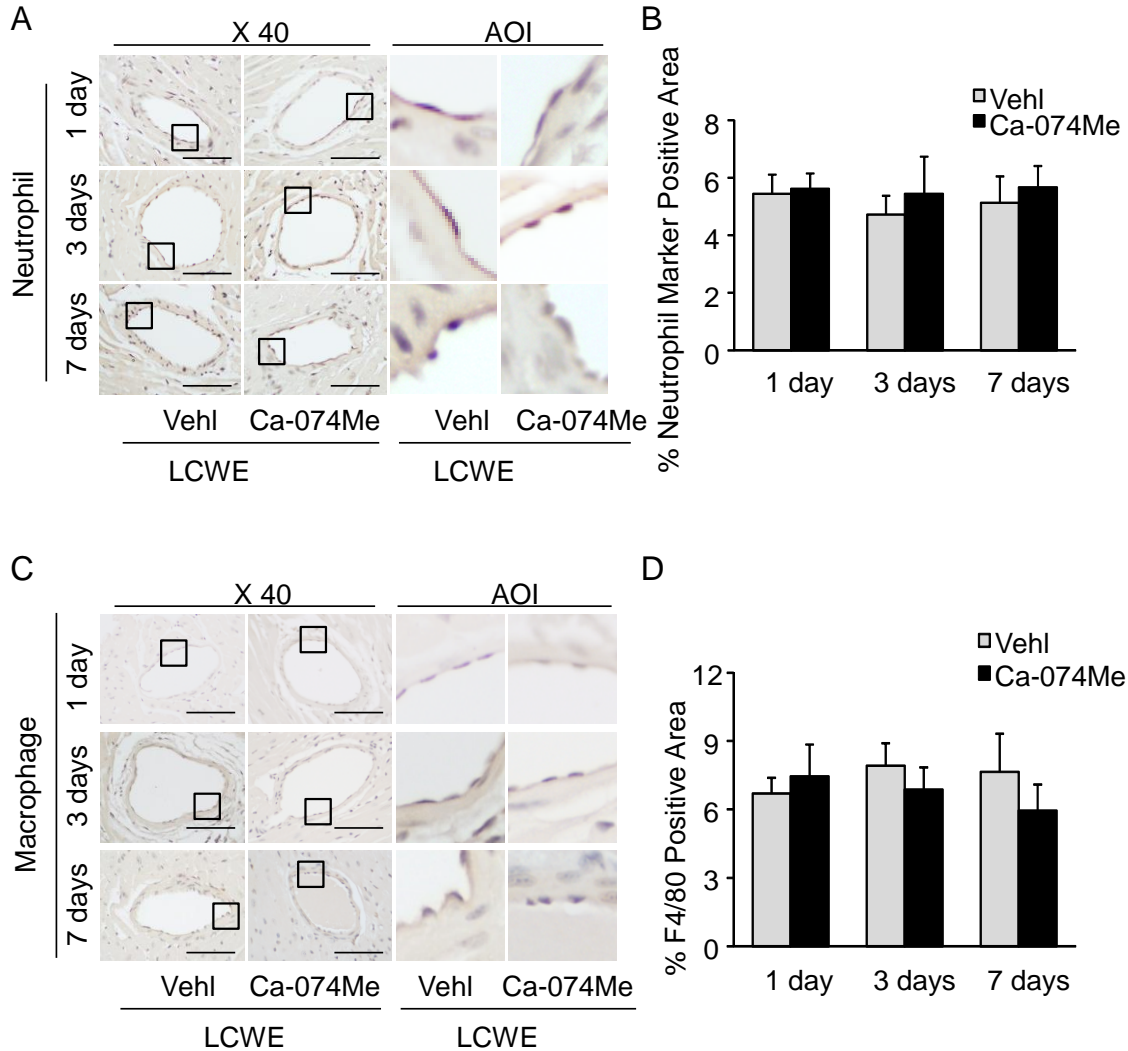


Figure S3. Leukocyte adhesion in coronary arteries of mice with LCWE for 1-7 days. Mice were intraperitoneally treated with LCWE (500 μ g for 1, 3 and 7 days) with or without cathepsin B inhibitor Ca-074Me (5mg/kg). (A) IHC staining showing the expression of neutrophil marker in the endothelium of coronary arteries. Enlarged images of area of interest (AOI) are indicated with a square. (B) Summarized data showing area percentage of the endothelium positive for neutrophil marker in coronary arteries. (C) IHC staining showing the expression of macrophage marker F4/80 in the endothelium of coronary arteries. Enlarged images of area of interest (AOI) are indicated with a square. (D) Summarized data showing area percentage of the endothelium positive for F4/80 in coronary arteries. Scale bar: 50 μ m. N = 5 mice per group.