CONCLUSIONS The age of onset of aortic dissecting of female pa-
patients older than men, sudden chest pain symptoms women is obvious
than men, while symptoms of irritable male more common. aortic
intramural hematoma is more common in women. Suffering from
acute type AAD women patients have higher operative mortality.

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Role of Monocyte/Macrophage in TRPV1 Ablation-Induced Renal Injury in Salt-Sensitive Hypertension
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**OBJECTIVES** Our studies show that deletion of the transient receptor
potential vanilloid type 1 (TRPV1) gene aggravates deoxyxycorticoste-
one acetate (DOCA)-salt hypertension-induced renal injury, which is
associated with increased renal monocyte chemoattractant protein-1
(MCP-1) production and monocyte/macrophage infiltration. The
results suggest that TRPV1 ablation-induced aggravation of renal
injury in DOCA-salt hypertension may be the result of enhanced renal
monocyte/macrophage infiltration that is dependent of the MCP-1/C
chemokine receptor 2 (CCR2) signaling pathway. Therefore, we
hypothesized that MCP-1/CCR2-mediated monocyte/macrophage
infiltration is a critical determinant of TRPV1 ablation-induced renal
injury in salt-sensitive hypertension.

**METHODS** We induced salt-sensitive hypertension for 4 weeks by
uninephrectomy and DOCA-salt in wild type (WT) and TRPV1-null
mutant (TRPV1−/−) mice with or without RS504393, a selective CCR2
antagonist.

**RESULTS** DOCA-salt treatment increased systolic blood pressure
(SBP) to the same degree in both strains, but increased urinary
excretion of albumin and 8-isoprostane and decreased creatinine
clearance with greater magnitude in TRPV1−/− mice compared to WT
mice (0.3±5.2 vs. 26.5±3.4 μg/mg creatinine, 4.4±0.45 vs. 1.52±0.21 ng/24h;
98.19 vs. 148.14 μl/24h, P < 0.05). DOCA-salt treatment also caused
renal glomerulosclerosis, tubulointerstitial injury, collagen deposi-
tion, monocyte/macrophage infiltration, proinflammatory cytokine
and chemokine production, and NF-κB activation in greater degree in
TRPV1−/− mice compared to WT mice (glomerulosclerosis index:
0.78±0.15 vs. 0.35±0.14; tubulointerstitial injury score: 3.37±1.0 vs.
2.01±0.49; collagen content: 21.8±2.3 vs. 13.8±2.4 μg/mg dry tissue;
monocyte/macrophage infiltration: 74.4±4 vs. 42.5±5 cells/mm²; TNF-α:
1.03±0.22 vs. 0.76±0.21 pg/mg protein; MCP-1: 10.35±1.19 vs. 6.33±0.86 pg/mg protein; p65-NF-κB protein: 54.5±3.3 vs. 36.3±3.3
mg/mg protein, P < 0.05). Blockade of the CCR2 with RS504393 (4 mg/kg)
had no effect on SBP in DOCA-salt-treated WT or TRPV1−/− mice
compared to their respective controls. However, treatment with RS504393
ameliorated renal dysfunction and morphological damage, and pre-
vented the increase in monocyte/macrophage infiltration, cytokine/
chemokine production, and NF-κB activity in both DOCA-salt hyperten-
sive strains with a greater effect in DOCA-salt-treated TRPV1−/−
compared to DOCA-salt-treated WT mice.

**CONCLUSIONS** Our data showed that blockade of CCR2 with
RS504393 attenuated DOCA-salt hypertension-induced renal injury in
WT and TRPV1−/− mice independently of their effects on blood pres-
sure. The protective effect was greater in TRPV1−/− mice compared
to WT mice. The results suggest that deletion of TRPV1 aggravated
salt-sensitive hypertension-induced renal damage possibly via
enhancement of the MCP-1/CCR2-mediated monocyte/macrophage
infiltration. [This work was supported by a grant from the National
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