

# 学 位 論 文 の 要 旨

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<p>主論文の題名</p> <p>Short-term effects of low-dose tolvaptan on hemodynamic parameters in patients with chronic heart failure</p> <p>主論文の要旨</p> <p><b>Background:</b> Tolvaptan, is a new diuretic inhibiting reabsorption of the free water in the renal collecting tubules, but the effects of low-dose tolvaptan treatment on cardiovascular hemodynamics have not been fully investigated.</p> <p><b>Methods:</b> We studied 22 patients (<math>69 \pm 10</math> years) with chronic HF and excess fluid retention despite receiving appropriate medical therapy, including loop and/or thiazide diuretics. The therapeutic effects of low-dose (7.5 mg) once-daily tolvaptan on hemodynamics associated with changes in fluid balance and neurohumoral activations were investigated after a seven day treatment period.</p> <p><b>Results:</b> After the treatment period, body weight decreased (<math>-2.7 \pm 2.3</math> kg) associated with increases in daily urine output. Although cardiac index and systemic vascular resistance index remained unchanged, mean pulmonary artery wedge pressure (<math>22 \pm 7</math> vs. <math>17 \pm 7</math> mmHg, <math>p &lt; 0.05</math>), mean right atrial pressure (<math>12 \pm 5</math> vs. <math>9 \pm 5</math> mmHg, <math>p &lt; 0.05</math>), mean pulmonary artery pressure (<math>32 \pm 9</math> vs. <math>25 \pm 7</math> mmHg, <math>p &lt; 0.05</math>), and pulmonary vascular resistance index (<math>332 \pm 207</math> vs. <math>245 \pm 110</math> dynesec/cm<sup>-5</sup>/m<sup>2</sup>, <math>p &lt; 0.05</math>) significantly decreased after tolvaptan treatment.</p> <p><b>Conclusions:</b> Short-term treatment with low-dose tolvaptan improved hemodynamic parameters and correlated with significant fluid removal in patients with chronic HF.</p>			