

**P010** Losartan improves insulin signalling in liver and skeletal muscle of MSG-obese rats  
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Angiotensin II (Ang II) is the biological active component of renin-angiotensin system (RAS) and controls blood pressure, electrolyte balance, cell growth and vascular remodeling. In addition there is a growing body of evidence demonstrating that hypertension and insulin resistance often coexist and frequently progress to diabetes and cardiovascular disease. The aim of the present study was to evaluate the effect of RAS blockage in the early steps of insulin signaling. MSG-obese rats were obtained by neonatal monosodium glutamate (MSG) treatment. Insulin receptor (IR), insulin receptor substrates 1 and 2 (IRS1 and IRS2) phosphorylations were determined by western blotting. Treatment with losartan (30mg/Kg/day) promoted a two-fold increase in IR, IRS1 and IRS2 phosphorylation in the liver of MSG animals. In skeletal muscle IR phosphorylation was significantly increased in approximately 20%. In a same way IRS1 and IRS2 phosphorylation were approximately two-fold high compared to MSG without losartan treatment. Our results showed that the blockage of RAS by losartan treatment induced an improvement in the early steps of insulin signaling in liver and skeletal muscle of obese insulin resistant animals.