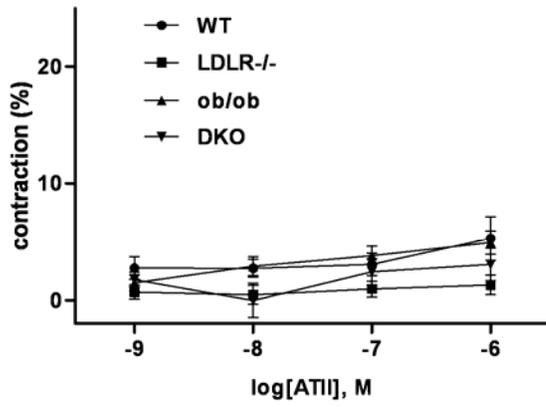
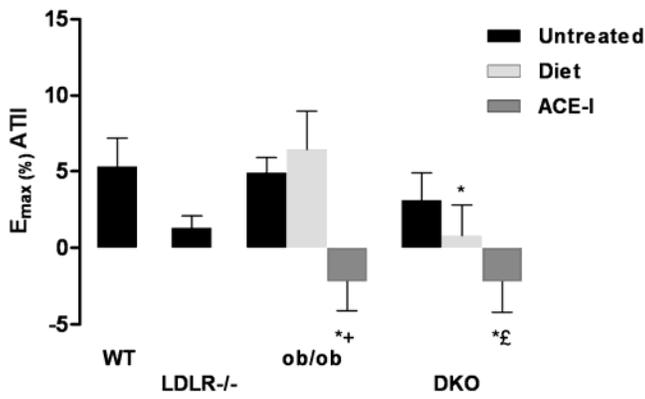


Figure Online data supplement Ines Nevelsteen

A



B



Online data supplement : Contractile response to ATII in endothelium-intact ring segments in WT, LDLR^{-/-}, ob/ob and DKO at 24 weeks and effect of in vivo treatment with ACE-I or hypocaloric diet

METHODS

We used isolated aortic ring segments with intact endothelial layer, placed in an organ bath for measurement of vascular reactivity. The integrity of the endothelial layer was tested by examining the response to acetylcholine (ACh, 10^{-6} M) administered during precontraction with phenylephrine (Phe, 10^{-7} M). Increasing concentrations (from 10^{-9} to 10^{-6} M) of angiotensin II (ATII) was used to generate a concentration-response curve. At the end of the measurements, all tissues were challenged with 100 mM KCl. This response was used to normalize contractile responses from this agonist.

RESULTS

The concentration-dependent response to ATII (applied in the absence of Phe) is displayed in figure A. ATII induced only a small contraction in all genotypes, varying between 3 and 5 % of the response to 100 mM KCl. There was no difference between the various genotypes.

Figure B illustrates that food restriction did not influence the response to ATII.

Despite of only a small contractile response to ATII in untreated groups, a significant and surprising effect is seen after ACE-I as shown in figure B. ACE-I reversed the vasocontraction into a vasorelaxation in ob/ob and DKO.

FIGURE A and B :

Contractile response to ATII in endothelium-intact ring segments in WT, LDLR^{-/-}, ob/ob and DKO at 24 weeks and effect of in vivo treatment with ACE-I or hypocaloric diet

(A) Concentration-response curve and (B) Maximum contractile force (E_{max}), expressed as percent contraction, compared to E_{max} of 100 mM KCl (black bars) and effect of treatment with hypocaloric diet and ACE-I (grey bars) at 24 weeks in WT (n=12), LDLR^{-/-} (n=12), ob/ob (n=15) and DKO (n=12). * denotes significant difference in E_{max} with $p < 0.05$ vs. WT, + $p < 0.05$ vs. untreated ob/ob, £ $p < 0.05$ vs. untreated DKO.