[gw22-e0529] **DOWNREGULATION OF CYP2E1 AMELIORATES OXIDATIVE STRESS AND APOPTOSIS**

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10.1136/heartjnl-2011-300867.198

Objective Cytochrome P450 2E1 (CYP2E1) is an effective generator of reactive oxygen species, and it is known to be regulated in the course of progression of myocardial ischemia and cardiomyopathy. And this paper aims to analyse the regulation of CYP2E1 on the dilated cardiomyopathy (DCM) in the $cTnT^{R141W}$ transgenic mice.

Results The transgenic mice with cardiac-specific silence of CYP2E1 were established. To sum up, the siRNA-CYP2E1 hearts exhibited thick-walled and increased the heart to body weight ratio when compared with WT hearts, and the dilated left ventricle, thin wall and dysfunction of contraction were significantly ameliorated in the siRNA-CYP2E1×$cTnT^{R141W}$ transgenic mice compared with the $cTnT^{R141W}$ transgenic mice. Interstitial fibrosis, disarray of myofibrils and swollen mitochondria with loss of cristae were obviously improved in the myocardium of siRNA-CYP2E1×$cTnT^{R141W}$ transgenic mice compared with the $cTnT^{R141W}$ transgenic mice. The expression of caspase-3, caspase-9 and cytochrome c in the myocardium, and apoptosis were significantly decreased in the siRNA-CYP2E1×$cTnT^{R141W}$ transgenic mice compared with the $cTnT^{R141W}$ transgenic mice. Conclusion Downregulation of CYP2E1 ameliorates DCM phenotype in the $cTnT^{R141W}$ transgenic mice, and oxidative stress and apoptosis may be the mechanism of the regulation of CYP2E1 on DCM, which may have a positive therapeutic effect on the treatment of cardiomyopathy.