

## **ABSTRACT**

The aim of this thesis was to evaluate possible changes of nitrotyrosine expression in rabbit aorta after repeated administration of daunorubicin. Chronic anthracycline cardiotoxicity was induced by repeated administration of daunorubicin (3 mg/kg=50 mg/m<sup>2</sup> i.v., 1x week) for the period of 10 weeks. We focused on the monitoring nitrotyrosine expression in rabbit aorta. Ten daunorubicin groups were compared with control rabbits. The animals were killed 24 hours and/or 7 days after the administration of daunorubicin. Immunohistochemical analysis showed no expression of nitrotyrosine in any control or experimental groups. In conclusion, the administration of daunorubicin did not induce nitrotyrosine expression in aorta in either control and daunorubicin treated rabbits, suggesting that endothelial dysfunction and/or nitrative stress in aorta is not triggered by daunorubicin treatment *in vivo*.