

## **Abstract**

The aim of this thesis was to evaluate possible changes of cell adhesion molecules expression in rabbit aorta after the administration of Daunorubicin. We focused on the expression of VCAM-1 and ICAM-1.

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 VCAM-1 and ICAM-1 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 VCAM-1 in any control or experimental groups. On the contrary the expression of ICAM-1 was detected in control and experimental groups. There was no significant difference between experimental and control rabbits with respect to the intensity and staining patterns. In conclusion the administration of daunorubicin did not affect either VCAM-1 or ICAM-1 expression in aorta suggesting that endothelial dysfunction in aorta is not triggered by daunorubicin *in vivo*.