

**THE EFFECT OF MELATONIN ON THE CYTOTOXIC EFFECTS OF
DOXORUBICIN ON THE MYOCARDIUM AND ON
TRANSPLANTABLE MORRIS HEPATOMA IN RATS**

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In the course of anthracyclin administration, melatonin acts as an effective scavenger of oxygen free radicals and exerts cardio- and nephroprotective effects. This study aimed at corroborating the cytostatic effectiveness of doxorubicin, applied in parallel with melatonin, in rats with transplanted Morris hepatoma. The percentage of tumour cells which manifested traits of necrosis was recorded and the extent of apoptosis was evaluated in tumour cells and in the cells of the myocardium. Doxorubicin administration was followed by a significant increase in necrosis and apoptosis in the tumour cells and by intensified apoptosis in the myocardium cells. Melatonin administered in parallel to doxorubicin decreased the extent of necrosis in the tumour cells and reduced the proportion of apoptotic cardiomyocytes.