

## ACTIVITIES OF ENZYMES THAT HYDROLYZE ADENINE NUCLEOTIDES IN PLATELETS FROM RATS EXPERIMENTALLY DEMYELINATED AND TREATED WITH INTERFERON- $\beta$

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The activities of the enzymes NTPDase (EC 3.6.1.5), and 5'-nucleotidase (EC 3.1.3.5) were analyzed in platelets from rats submitted to demyelination by ethidium bromide (EB) and treated with interferon  $\beta$  (IFN- $\beta$ ). The following groups were studied: I - control (saline), II - (saline + IFN- $\beta$ ), III - (EB) and IV - (EB + IFN- $\beta$ ). After 7, 15 and 30 days, the animals (n=7) were sacrificed and the platelets were separated. NTPDase activity for ATP and ADP substrates was significantly lower in groups II and III after 7 days, when compared to control (p<0.001). At 15 days, ATP hydrolysis was significantly lower in group III and IV and higher in group II (p<0.001), while there was an activation of ADP hydrolysis in group II (p<0.001), when compared with the control. 5'-nucleotidase activity was significantly higher in group IV (p<0.001) after 7 days, and lower in the groups III and IV (p<0.001) after 15 days in relation to control. No significant differences were observed in enzymes activities after 30 days. In conclusion, our study demonstrated that the hydrolysis of adenine nucleotides was modified. We suggest that treatment with IFN- $\beta$  may be important in controlling the platelet coagulant status in the demyelinating process but additional studies will be necessary to confirm this.