EFFECTS OF PARACETAMOL ON PLASMA ADRENALINE LEVELS OF RATS

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Adrenaline is a neurotransmitter and neurohormone that is secreted from the adrenal medulla. This hormone is an important compound in the reaction of the sympathetic nerve system. It shows its effectiveness in the rate of pulse, in the transmission of blood from interior organs and skin to the muscles, in the transformation of glycogen into glucose; thus, providing an urgent energy source. This hormone can increase the body’s normal metabolic rate up to 100%, and thus improves the effectiveness of the whole body. It has been considered to be involved in the control of inflammation. Therefore, we investigated whether there are effects of paracetamol on adrenaline levels of rats after oral administration. The rats were divided into three subgroups while analysing the effects of adrenaline on paracetamol. The first group was the control; second group was composed of rats given paracetamol. In order to measure adrenaline plasma concentration, we have used the high-performance liquid chromatography coupled with fluorescence detection. According to the result of the analysis, there are statistically important differences at adrenaline levels between control group and rats-applied drug. Obtained results showed that although adrenaline level in the paracetamol-applied group decreased. It is concluded that different effects of paracetamol on circulating adrenaline levels can be related to their different effects on inflammation, COX enzymes, prostaglandins, etc. Also we can suggest usage of paracetamol in patients with cardiovascular system diseases.

KEYWORDS: Adrenaline, Paracetamol, HPLC-FL, Rat Plasma

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