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Title

Sex differences in carbohydrate component and functional activity of platelet GP receptors under the influence of terahertz radiation at 150.176...150.664 GHz during acute stress

Source

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Abstract

In white rats of both genders in the carbohydrate component of platelet glycoprotein receptors present -D-galactose, and no N-acetyl-D-glucosamine, sialic acid or mannose. The content of -D-galactose in the carbohydrate component and the activity of platelet glycoprotein receptors in intact female rats in diestrus phase of the estrus cycle and intact males equally, and intact females in estrus stage of the estrus cycle increased. In rats of both genders during acute stress reaction occurs an increase in the number of -D-galactose in the carbohydrate component and increase the functional activity of platelet glycoprotein receptor. In female rats in the diestrus phase of the estrus cycle, less pronounced increase in the number of -D-galactose in the carbohydrate component and increase the functional activity of platelet glycoprotein receptor are observed as compared to the male rats. The female rats in estrus phase of estrus cycle in a state of acute immobilisation stress, in contrast, increased the content of -D galactose in the carbohydrate component and the activity of platelet glycoprotein receptor as compared to the female rats in the diestrus phase of estrus cycle and males. Irradiation with terahertz waves at the frequencies of NO molecular emission and absorption spectrum 150.176-150.664 GHz female rats in diestrus phase of estrus cycle and male rats in a state of acute immobilisation stress, causes complete recovery of the carbohydrate component and functional activity of platelet glycoprotein receptor. THF-irradiation of female rats in estrus phase of estrus cycle in a state of acute immobilisation stress causes a significant reduction in the functional activity of platelet glycoprotein receptor below the physiological norm. (7 References).