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EXTRACT OF Psidium guajava LEAVES REDUCES MALONDIALDEHYDE IN SOLEUS MUSCLE OF WISTAR RATS DIRECTLY AFTER ACUTE PHYSICAL ACTIVITY

Abstrak :

Malondialdehyde (MDA), a product of lipid peroxidation is commonly used as an indicator for oxidative stress. One of the theory stated that the tissue damage caused by free radicals produce MDA. Many researchers report acute treadmill exercise may stimulate the production of reactive oxygen species (ROS). The extract of rose-apple leaf or Psidium guajava contains quecertin which is an antioxidant. This research was carried out to show the effect of rose-apple leaf extract or Psidium guajava as an antioxidant by reducing the MDA concentration in Soleus muscle under acute physical activity. This is a randomized post test only control group design. Rats were divided into four groups. First group is a control group. The second, the third, and the fourth groups were given 2.724 mg/200 g body weight(BW), 5.407 mg/200 g BW, and 10 mg/200g BW respectively, before aerobic swimming exercise. The extract was given daily for six days, but at day six the extract was given before aerobic swimming exercise. Soon after aerobic swimming exercise the animals were sacrificed, MDA determination on Soleus muscle then performed. The data were analyzed by One Way ANAVA and followed by least significance difference test.The result was the second and the third
groups compare the control have a significant difference. Our result showed extract of Psidium guajava leaf given in the dose of 5.407 mg/200 gram body weight has the most significant effect in reducing MDA produces by (acute physical activity.

Keyword :

Aerobic swimming exercise, Oxidative stress, Malondihaldehyde, Psidium guajava leaf

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