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| Paper Title | Effect of Beetroot Juice (Beta Vulgaris L) During Training on Malondialdehyde Level in Athletes |
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| Subject Area | Pharmacology Science |
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| Abstract | <p>Severe physical activity can cause lipid peroxidation marked by increased levels of malondialdehyde (MDA) which can reduce athlete's performance and health. Lipid peroxidation can be prevented or reduced by administering antioxidants. Beets (Beta Vulgaris L) contain various types of natural antioxidants but have not been investigated for their efficacy to reduce lipid peroxidation that is triggered by physical activity. The purpose of this study was to determine the effect of beetroot juice during exercise on lipid peroxidation during maximum physical activity. This type of research is an experimental study with a randomized control group pretest-posttest design research design. The study was conducted at the Unimed Stadium and the USU Faculty of Medicine Integrated Laboratory. The sample was 30 students of Sports Science who met the criteria. Pretest is done by checking MDA levels. Furthermore the sample was divided into 2 groups (P1 = 15, P2 = 15). During the training program group P1 was given 300 ml beet juice while P2 was given as control. Then all samples performed maximum physical activity using a bleep test, and MDA levels were re-examined. Then all samples performed maximum physical activity using a bleep test, and MDA levels were re-examined. The results showed a decrease in MDA levels in the training group that was given 300ml beet juice compared to the control group ($p < 0.05$). The conclusion of the study was that the administration of beet juice during training could reduce MDA levels when athletes performed maximum physical activity..</p> |
| Keywords | beet juice, malondialdehyde, antioxidant, maximum physical activity |
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