

Pengaruh pemberian minuman karbohidrat berkafein terhadap fase pemulihan setelah olahraga penelitian pendahuluan pada atlet lari jarak jauh putra = The effect of caffeinated carbohydrate drink on post exercise recovery phase preliminary study on male long distance runner

Raissa Edwina Djuanda, author

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Abstrak

Penelitian ini dilakukan untuk mengetahui apakah pemberian minuman karbohidrat berkafein (MKK) lebih baik dibandingkan minuman isotonis (MI) terhadap fase pemulihan setelah berlari 10.000 m, dengan indikator kelelahan (perubahan skor RPE dan kadar asam laktat serum), dan kadar glukosa darah. Selain itu, untuk mengetahui karakteristik dasar dan asupan makanan para atlet. Penelitian ini menggunakan studi eksperimental dengan desain paralel, alokasi acak, tersamar tunggal, dan dilaksanakan di Stadion Madya, Jakarta. Subyek penelitian sebanyak 20 pelari jarak jauh putra dibagi menjadi 2 kelompok, yaitu kelompok perlakuan (KP, n =10) dan kelompok kontrol (KK, n =10). Selama 4 jam masa pemulihan, KP mendapat MKK dan KK mendapat MI, masing-masing sebanyak 2 L. Tidak ada perbedaan signifikan pada karakteristik dasar, asupan makanan, skor RPE, kadar asam laktat serum, dan kadar glukosa darah antara kedua kelompok. Namun, asupan energi dibandingkan dengan kebutuhan energi total subyek, hanya mencapai $87,8 \pm 8,14\%$. Hal ini menunjukkan perlu edukasi nutrisi secara tepat dan berulang kepada para atlet lari jarak jauh. Kesimpulan yang dapat diambil adalah pemberian MKK sama baiknya dengan MI dalam menurunkan kelelahan dan meningkatkan resintesis glikogen pada masa pemulihan setelah olahraga.The aim of this study is to investigate the effect of caffeinated-carbohydrate drink (CCD) in comparing with isotonic drink (ID) in recovery phase after 10.000 meters run, using fatigue indicator (change on the RPE score and lactic acid level), and blood glucose level. In addition, to determine the basic characteristic and food intake of the athletes. Design of this study is randomized, controlled, single-blinded, clinical trial, and implemented at Madya Stadium, Jakarta. Twenty male long distance runners who participated as the subject of this study were divided into 2 groups: (i) experimental group (n =10), and (ii) control group (n =10). During 4 hours recovery period, after 10.000 meters run, experimental group received 2 liters CCD and control group received 2 liters ID. There were no significant differences in the basic characteristic, food intake, RPE score, lactic acid level, and blood glucose level between both groups. However, energy intake in comparing with the total energy requirement of the subject, only reaching $87.8 \pm 8.14\%$. This data showed that we need to continuously provide education or knowledge on the proper nutrition to the long distance runner athletes. As a conclusion, CCD is as good as ID in decreasing fatigue and increasing glycogen resynthesis on recovery phase post-exercise