

ABSTRAK

Aktivitas fisik ialah kegiatan/ aktivitas yang menyebabkan tubuh menggunakan lebih banyak energi atau kalori. Ketika berolahraga suhu tubuh meningkat; sebagai mekanisme pertahanan, tubuh mengeluarkan berbagai elektrolit, seperti magnesium, natrium, dan kalium. Makronutrien yang disebut kalium hadir dalam cairan intraseluler (CIS). Nilai normal kalium adalah 3,5-5,5 mmol/L. Penelitian ini memiliki tujuan untuk mengetahui adakah pengaruh aktivitas fisik berat terhadap kalium darah. Jenis penelitian ini menggunakan penelitian pre-eksperimental pada rancangan penelitian one grup pre- test post test design yaitu kegiatan penelitian yang memberikan perlakuan tes awal (pre-test) sebelum diberi perlakuan, setelah diberi perlakuan barulah memberikan tes akhir (post-test). Responden diperoleh menggunakan selektif total sampling dengan menggunakan tes Kruskal-Wallis, hasil pengukuran kadar kalium serum sebelum, setelah, dan pemulihan dari aktivitas fisik yang intens diperiksa. Aktivitas fisik yang dilakukan ialah berolahraga gym dengan durasi waktu 60 menit. Berdasarkan temuan penelitian, rata-rata kadar kalium sebelum melakukan olahraga berat adalah 4 koma 18 mmol/L, 4 koma 26 mmol/L sesudahnya, dan 4 koma 4 mmol/L keesokan harinya merupakan nilai rata-rata kadar kalium pemulihan. Uji Kruskal Wallis menunjukkan nilai $p=0,705$ ($p>0,05$). Simpulan: Tidak berpengaruh aktivitas fisik berat terhadap kalium dalam darah.

Kata kunci : Aktifitas fisik berat, Kadar kalium darah

ABSTRACT

An activity or activity that increases a person's body's use of calories or energy is physical activity. When doing physical activity, The body releases sweat and various electrolytes, including magnesium, sodium, and potassium, as a way of regulating its internal temperature. Potassium is a macronutrient that is prevalent in CIS. The range for potassium is 3–5 mmol/L. The purpose of this study is to investigate whether physical exertion has an impact on blood potassium levels. This type of research uses pre-experimental research with a one-group pre-test post-test design research design, namely research activities that provide pre-test treatment (pre-test) before being given treatment, after being given treatment then give a final test (post-test). Respondents were obtained using selective total sampling. The results of measuring serum potassium levels before, after and recovery of strenuous physical activity were analyzed using the Kruskal Wallis test. The physical activity carried out was exercising in the gym with a duration of 60 minutes. Of the 9 respondents, the results revealed, the average value of potassium level before doing strenuous physical exercise was 4.18 mmol/L, the average potassium level after doing strenuous physical exercise was 4.26 mmol/L and the average value of potassium level recovery a day after doing strenuous physical activity was 4.17 mmol/L. The Kruskal Wallis test showed a value of $p=0.705$ ($p>0.05$). Conclusion: There is no effect of strenuous physical activity on potassium in the blood.

Keywords: Heavy physical activity, Blood potassium levels.