

ABSTRAK

EVALUASI STATUS ELEKTROLIT NATRIUM, KALIUM, DAN KLORIDA KUDA ATLET *DRESSAGE* SAAT LATIHAN SELAMA 30 MENIT

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Kuda (*Equus caballus*) merupakan hewan yang banyak dimanfaatkan dalam bidang olahraga, salah satunya adalah *dressage*. Aktivitas fisik pada kuda dapat memengaruhi keseimbangan cairan dan elektrolit tubuh akibat peningkatan produksi keringat selama latihan. Penelitian mengenai perubahan kadar elektrolit natrium, kalium, dan klorida pada kuda *dressage* setelah latihan masih terbatas. Penelitian ini bertujuan untuk membandingkan kadar natrium, kalium, dan klorida plasma pada kuda *dressage* sebelum dan sesudah latihan sebagai evaluasi respons fisiologis terhadap latihan. Penelitian dilakukan pada 10 ekor kuda atlet *dressage* yang dipilih menggunakan metode *non-probability sampling* dengan teknik *purposive sampling* dari dua *stable* di Yogyakarta. Sampel darah diambil melalui vena jugularis sebelum dan segera sesudah latihan selama 30 menit sebanyak 5 mL, kemudian disimpan dalam tabung lithium-heparin. Pemeriksaan sampel dilakukan di Laboratorium Rumah Sakit Hewan Prof. Soeparwi Fakultas Kedokteran Hewan Universitas Gadjah Mada menggunakan SMT-120VP *veterinary biochemistry analyzer* untuk memperoleh profil elektrolit darah. Data dianalisis dengan uji Shapiro-Wilk dan dilanjutkan dengan *Wilcoxon Signed-Rank Test*. Hasil penelitian menunjukkan bahwa rerata kadar natrium mengalami penurunan dari 140,2 mmol/L menjadi 137,9 mmol/L, rerata kadar kalium mengalami sedikit peningkatan dari 4,504 mmol/L menjadi 4,539 mmol/L, dan rerata kadar klorida mengalami penurunan dari 104,84 mmol/L menjadi 101,81 mmol/L. Namun, seluruh parameter tidak menunjukkan perubahan yang signifikan secara statistik ($p > 0,05$). Berdasarkan hasil tersebut, latihan *dressage* selama 30 menit tidak menyebabkan perubahan bermakna terhadap kadar natrium, kalium, dan klorida plasma pada kuda *dressage*.

Kata kunci: *dressage*, *Equus caballus*, klorida, kalium, natrium

ABSTRACT

EVALUATION OF SODIUM, POTASSIUM, AND CHLORIDE ELECTROLYTE STATUS IN DRESSAGE HORSES FOLLOWING 30 MINUTES OF EXERCISE

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Horses (*Equus caballus*) are widely used in equestrian sports, one of which is dressage. Physical activity in horses may affect body fluid and electrolyte balance due to increased sweat production during exercise. Studies on changes in sodium, potassium, and chloride levels in dressage horses after exercise are still limited. This study aimed to compare plasma sodium, potassium, and chloride levels in dressage horses before and after exercise as an evaluation of physiological responses to training. Blood samples were collected from ten healthy dressage horses selected using a non-probability sampling method with a purposive sampling technique from two stables in Yogyakarta. Samples were obtained through the jugular vein before and immediately after 30 minutes of exercise, with 5 mL collected into lithium-heparin tubes. Sample analysis was conducted at the Laboratory of Prof. Soeparwi Veterinary Teaching Hospital, Faculty of Veterinary Medicine, Universitas Gadjah Mada, using an SMT-120VP veterinary biochemistry analyzer to obtain blood electrolyte profiles. Data were analyzed using the Shapiro-Wilk test followed by the Wilcoxon Signed-Rank Test. The results showed that mean sodium levels decreased from 140.2 mmol/L to 137.9 mmol/L, mean potassium levels slightly increased from 4.504 mmol/L to 4.539 mmol/L, and mean chloride levels decreased from 104.84 mmol/L to 101.81 mmol/L. However, none of these parameters showed statistically significant changes ($p > 0.05$). Based on these findings, 30 minutes of dressage exercise did not cause significant changes in plasma sodium, potassium, and chloride levels in dressage horses.

Key words: chloride, dressage, *Equus caballus*, potassium, sodium