

## THE INFLUENCE OF AGE AND GENDER ON HEMATOLOGICAL AND SOME BIOCHEMICAL PARAMETERS IN BOSNIAN MOUNTAIN HORSE

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**Abstract.** The aim of the present study was to investigate values of hematological and some biochemical parameters of autochthonous Bosnian mountain horse breed by revealing the differences related to age and gender. These horses are adapted to specific environmental and climatic conditions in the region and their blood parameters might differ from other horse breeds.

Blood samples were collected on stud farm "Borike" from 30 clinically healthy adult horses of both gender (16 females and 14 males), aged between two and twenty-three years. Horses were grouped in three age classes: young mature horses (2-6 years, n=10), middle age horses (7-14 years, n=10) and old horses (>14 years, n=10). A total of eleven hematological and twelve biochemical parameters were analyzed.

Gender significantly affected LYM (p=0.009), EOS (p=0.016), UREA (p=0.018), P (p=0.028), TBIL (p=0.048) and AMYL (p=0.033) levels. Values of UREA, TBIL and AMYL were significantly higher in males, while values of LYM, EOS and P were significantly higher in females. Age significantly affected GLU (p=0.019) and UREA (p=0.001) levels. Values of GLU were significantly lower in middle age horses than in old horses while values of UREA were significantly lower in young mature horses than in middle age and old horses. UREA was the only parameter affected by both age and gender. Results obtained in the present study showed that gender had much more powerful effect on the investigated parameters in clinically healthy adult Bosnian mountain horses than did the age.

**Keywords:** Bosnian mountain horse, blood, biochemistry, hematology, value