

## Age and sex comparison in determining baseline blood and coagulation profiles in semi-extensive Rusa deer (*Rusa timorensis*)

### ABSTRACT

The objective of the study was to establish the baseline values for blood and coagulation parameters in normal and healthy rusa deer (*Rusa timorensis*) of different ages and sexes. The sample population consists of 40 rusa deer, divided into four groups of (i) juvenile males (ii) juvenile females (iii) adult males and (iv) adult females. The findings showed significant ( $p < 0.05$ ) higher values in erythrocyte count, calcium concentration and prothrombin time in the adult males compared to adult female rusa deer. On the other hand, the total protein concentration was significantly higher in adult females than adult male deer. No significant differences in blood or coagulation parameters were observed between sexes in the juvenile deer. Between age group, the adult deer had significantly higher mean cell volume, plasma protein and globulin concentration than juvenile rusa deer. Thus, it is necessary to take into account the age and sex of the rusa deer when using blood reference values for the diagnosis of diseases or health assessment.

**Keyword:** Rusa deer; Haematology; Serum biochemistry; Blood coagulation; Sex; Age