

AGE DETERMINATION ACCORDING TO THE TEETH HEIGHT OF HORSE AND CATTLE

Snieguolė Veličkaitė¹, Giedrė Piličiauskienė¹, Linas Daugnora¹, Eglė Monastyreckienė², Juozas Kvalkauskas³

¹*Department of Physiology and Anatomy, Lithuania Veterinary Academy, Tilžės g. 18, LT-47181 Kaunas, Lithuania Tel. +370 37 36 19 03; e-mail: snieguole@lva.lt*

²*The Radiology Clinic of Kaunas University of Medicine, Eiveniu g. 2, LT-50161, Kaunas, Lithuania*

³*Department of Non-Infections Diseases, Lithuania Veterinary Academy, Tilžės g. 18, LT-47181 Kaunas; Tel. +370 36 29 29*

Summary. There are a few methods to determine the age of the animals according to the teeth. It is quite imprecise to determine the age of domestic animals according to the wear of tooth surface and height of the crown. Only the age of rather young individuals may be determined according to dentition.

The aim of the present work was to determine the age of the horses and cattle according to the teeth height and evaluate the accuracy of this method. The lower jaws of 26 present horses of known age were taken and teeth were measured to correct the radiographic and computer tomographic methods. The biological age of horses was determined based on the teeth height data. The height of teeth was statistically compared with the chronological age. For correction of measuring data obtained from radiographic images and computer tomography, molars were chiseled from the lower jaw and their height, width and length were measured with a caliper. The age of horses and cattle was determined according to the height of measured molars described by M. Levine (1982) and S. Sten (2004). Statistical data analysis was made using the SPSS 9.0 statistical analysis system for Windows.

The lowest difference from chronological age determined according to the teeth height determined by measuring the teeth height with a calliper was 1.3 years. The highest difference was estimated on tomograms and was 3 years. The mean difference between the average teeth height values measured with a calliper and in roentgenograms was 0.11 cm as well as the mean difference in tomograms was 0.25 cm. The average difference between the chronological cattle age and the age determined according to the teeth height was 1.4 years ($r=0,84$, $p<0.01$). The determined age of older cattle was lower in 72.8 % of all cases, and the age of younger cattle was higher (in 68.4 % of all cases) than the real age.

Key words: horse, cattle, teeth, age.