

THE OSTEOMETRICAL ANALYSIS OF METACARPAL AND METATARSAL BONES IN LITHUANIAN HORSES (VII-XVII CENTURIES)

Giedrė Piličiauskienė, Snieguolė Veličkaitė, Linas Daugnora

Lithuanian Veterinary Academy, Department Anatomy and physiology, Tilžės st. 18, LT-47181 Kaunas, Lithuania, Phone +370 37 361903, e-mail: giedre.piliciauskiene@lva.lt; snieguole@lva.lt; daugnora@lva.lt

Abstract. The osteometrical analysis of metacarpal and metatarsal bones in Lithuanian horses from VII-XVII centuries was performed. Analysis of horses metacarpal bones from Kernavė upper town (dating from the end of XIII th to XIV th centuries) showed that the length of metacarpal bones ranged from 179 mm to 227 mm and the length of metatarsal bones varied from 228,9 mm to 271,8 mm. In Marvelė cemetery (VII – XI th c.) the length of metacarpal bones varied from 180 to 216 mm, and the length of metatarsal bones ranged from 218 to 253 mm. The length of metacarpal and metatarsal bones from Vilnius town (XIV- XV th c.) varied from 188 to 229,9 mm and from 225,1 to 256,8 mm, respectively. However, material from Vilnius town posterior period (from the end of XV th c. to XVII th. c.) showed different results: the length of metacarpal bones ranged from 200 mm to 250 mm and metatarsal bones varied from 226,8 to 291 mm.

According to comparative breadth of metapodias ($SD*100/GL$), we had prevailing horses with metacarpal bones of III and IV types and horses with metatarsal bones of II and III types .

The wither height of Lithuanian horses from the VII th to XVII th c. varied from 112 cm to 160 cm, but in majority of horses the wither height was from 120 to 128 cm. The highest wither height (from 128 cm to 136 cm) was estimated in horses from Kriemala cemetery (Central Lithuania).

The comparative breadth of metacarpal and metatarsal bones of Lithuanian horses was a slightly thicker compared to Latvian horses and a bit thinner compared to Russian horses. Lithuanian horses were smaller compared to horses from Russia, Poland and Latvia Dauguva basin region. In addition, our study showed that Lithuanian horses were very close to the horses found in West Latvia.

Keywords: horse, metacarpal bones, metatarsal bones, Lithuania, VII - XVII centuries.