

FACTORS THAT AFFECT HEALING IN CASES OF CANINE ANTEBRACHIUM FRACTURES

Kristina Ramanauskaitė^{1}, Vita Riškevičienė², Brigita Grigalevičienė¹, Dalia Juodžentė¹*

¹*Dr. L. Kriaučeliūnas small animals' clinic, Veterinary Academy, Lithuanian University of Health Sciences
Tilžės 18, Kaunas, Lithuania*

²*Department of Veterinary Pathobiology, Veterinary Academy, Lithuanian University of Health Sciences
Tilžės 18, Kaunas, Lithuania*

Abstract. The aim of this work was to identify and evaluate physiological and biomechanical factors that affect healing in cases of canine antebrachium fractures.

The results and conclusions of the analysis: antebrachium fractures are most common among young canines (1–5 year of age) (56 %). Research showed that dogs' age influenced the healing of the fractures ($P < 0.05$). The average of radius and ulna lengths of the examined dogs ($n=25$) were, respectively, 106.02 ± 10.80 mm and 127 ± 13.62 mm. The length of the antebrachium has a reliable correlation ($P < 0.05$) with the healing time of the antebrachium fractures. The most common number of antebrachium fracture lines identified in an individual case was two ($n=15$). The amount of the fracture lines did not influence the time of healing ($P > 0.05$). The average strain of the fractures ($n=45$) was 54.69 ± 4.62 percent. Strain in the fracture area has a reliable correlation with duration of antebrachium fractures healing ($P < 0.05$). The average width of the gap between the fractured pieces was 1.04 ± 0.18 mm. Analysis showed that the width of the gap between the fractured antebrachium pieces has a reliable correlation with time of healing of the antebrachium fractures ($P < 0.05$). Callus formations were more likely not to occur ($n=14$) than to occur ($n=11$) after being treated. The correlation between callus formations and time of healing of the antebrachium fractures is statistically relevant ($P < 0.05$).

Keywords: Dog, antebrachium, fractures, physiological factors, biomechanical factors, healing