

Low heel / high heel syndrome in thoroughbred racehorses

Summary

The aim of the study was to analyse the occurrence of low heel / high heel syndrome in Thoroughbred racehorses and its effect on shoulder muscle asymmetry depending on racing intensity. Measurements were taken one time in 56 horses between the ages of 2 and 8 years. The horses were divided into three categories according to racing intensity. The length and width of the sole and the length of the heel were measured in the hooves of both forelimbs. The angles of the hoof walls and the heel heights were determined as well. The degree of muscle asymmetry in the area of the scapula was assessed. Asymmetry in the form of differences in heel height was observed in all horses. The difference was statistically significant when the low heel was present in either the left or right hoof. There was a correlation between the side with the low heel and the heel angle. Pronounced muscle build-up was observed in the area of the right scapula when the low heel was in the right hoof (10.7%). The degree of asymmetrical muscle build-up of the right shoulder increased with the difference in heel height. The degree of asymmetry of the right shoulder was shown to be correlated with the category of the horse's racing performance and was significantly higher for horses that had taken part in two or more racing seasons. Training was also found to affect muscle development in the right shoulder.

KEY WORDS: low heel / high heel, racehorses, asymmetry, hoof