

Effect of strenuous sub-maximal race on heart rates of endurance horses.

ABSTRACT

The study was carried out to investigate the effect of prolong submaximal exercise on heart rate reflecting the performance of endurance horses after covering distances of 40 and 80 km races. This study was conducted in Malaysia to determine the post-race heart rates of endurance horses based on distances for the eliminated horses and those that completed the races with good performance. Heart rates of competing endurance horses were examined at pre and post-race. Thirty-four endurance horses were sampled; N = 9 (40 km) and N = 9 (80 km) were the good performance horses while, N = 3 (40 km) and N = 13 (80 km) were the poor performance horses eliminated from the race. The mean heart rate of the good performance horses in the 40 km category was 53 ± 8 bpm and that of the 80 km in the good performance category was 56 ± 7 bpm, while the eliminated horses of the 40 km group had 74 ± 17 bpm and those in the 80 km group had 78 ± 7 bpm. The study showed that eliminated horses in the 40 and 80 km categories both exhibited high heart rates compared to the good performance horses that were in the same racing category. Thus, the heart rates of horses during training may be used to predict performance based on distances covered in endurance races.

Keyword: Endurance; Heart rate; Race category; Performance.