STUDIES CONCERNING THE ASSESSMENT OF WELFARE HORSES DURING TRAINING

Andronie Ioana, V. Andronie, Monica Pârvu, Ş. Constantin

„Spiru Haret” University, Faculty of Veterinary Medicine, Maşina de Pâine street, No.47, sector 2, Bucharest, ioanaandronie@innovet.ro

Keywords: horses; training; welfare indicators

SUMMARY

Horse training may be regarded as stressful under certain circumstances thus leading to a depreciation of their welfare depending on the exercises taken; training intensity and animals’ physical condition.

Research monitored the induced response of some physiological welfare indicators in sport horses during training. We assessed the stress intensity during training by measuring the variations of heart rate; lactic acid; cortisol levels. The 48 horses of different breeds and aged; were divided into two groups: A1 untrained horses and A2 trained horses. All horses were subjected to the same light (walk); moderate (trot); and intense (canter) training programme. We monitored the indicators after one hour of training/day; over six months.

We measured the heart rate by means of a non-invasive method; using a Polar type of cardio-monitor. The plasmatic cortisol levels were obtained by radioimmunoassey RIA; the lactic acid levels by chemical analysis with commercial reagents in a biochemical analyser.

The recorded heart rate during training shows a significant increase in untrained horses in the first month of their training as compared to the ones used to exercise (165 bpm). This increase is present also in the third month of their training depending on the intensity of their exercise. In trained horses; the heart rate decreases in the third month of training; which indicates the fact that the animals are getting used to the exercise. Repetitive training may be considered a chronic stress factor for trained horses.

Heart rate may be an efficient method to monitor horse training and it may also be suggested as marker of horse welfare during training.

The plasma cortisol levels measured during training shows a concentration increase in untrained horses (10.7 nmol/l); as opposed to trained horses; its values are different according to the exercise intensity. This aspect is due especially to the horses’ effort to adapt to training (9.9 mmol/l).

Plasmatic lactate shows a decrease in trained horses compared to untrained horses; probably due to exercises thus testifying for a good athletic condition.