Sport medicine follow-up of equine athletes in the field

Anne Couroucé, DVM, PhD, DipECEIM



CISCO (Centre International de Santé du Cheval d'Oniris), École nationale vétérinaire, agroalimentaire et de l'alimentation Nantes-Atlantique (Oniris), Nantes F-44307, France

Abstract

Sport medicine follow-up of equine athletes in the field include evaluation of the horse at rest, during exercise and post-exercise. A number of clinical and blood variables may be investigated at rest and after exercise. Also, exercise testing is indicated for evaluation of a horse's physical condition as well as the investigation of poor athletic performance. Exercise tests are thus useful for the determination of the level of fitness, the assessment of progress made during training, and to evaluate if the horse has sufficient capacity to perform at an expected level. As all athletes respond in a different way to training, exercise testing may be used as an objective tool to validate or fine tune an individual preparation program. They also may enable detection of overreaching or overtraining. For veterinarians, exercise tests represent a useful tool to investigate cases of underperformance; the horse may be examined in real working conditions and exercise may reveal clinical signs not evident at rest. During a field exercise test, it is possible to measure simple and informative physiological parameters such as heart rate (HR), speed or blood lactate concentration. These variables may be affected by subclinical disease and are helpful in determining which system (e.g. respiratory, cardiovascular) may be responsible for limiting performance and to what degree.