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Short Communication Open Acces

From Emirates Comparison of Lameness Data between 2018-2019 and 2019-2020 Race Season in Endurance Horses

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ABSTRACT

From United Arab Emirates an Endurance Training Center will compare lameness events data in horses training between 2018-2019 and 2019- 2020 Race Seasons.

Lameness events were registered in quantity and by types. After finishing the first season, a recovery process system was implemented to improve the horse's conditions with more specific lameness diagnostic, X Rays to improve the farrier service, treatments between corticosteroids and regenerative medicine, and rehabilitation exercise. Then, a new program

of exercise was established to improve the athletic condition of the horses for 19-20 race season.

That recovery stage showed an important decrease of lameness events. Trainers had the possibility to improve the training system with more distance and better average speed. At the same time, they were achieving better race results than before, and even increased the percentage of races completed.

Introduction

In equestrian sports, Endurance has been one of the greatest world growth in recent years due to the high performance it seeks to have an outstanding equine in the United Arab Emirates because it has been a great competitor and, in turn, the main client on the world in this sport in the acquisition of equines.

It competes on sandy tracks with its varied compaction and depth, different distances between 80 and 160 km, which entails a high level of injuries to the musculoskeletal system, mainly in race for the maximum speed reached

In this presentation I am giving basic information about Training Center: there are three trainers, 173 Endurance horses, there are four of different depth sandy track, Treadmill, Walker machine, swimming pool, sandy trot line, other trot line with firm floor, Xray machine, ultrasound and basic blood test laboratory [1-5].

Fundamentation

Due to the biomechanics that the equine employs on sandy tracks in long-distance exercise is that the highest percentage of sports injuries are located in the Suspensory Ligament in forelimbs, which produces a significant loss of time in the short racing season, October to March. Even with the use of a wide variety of techniques and medication. For this reason, the equestrian industry ceases to have high-performance equines for a long period and perhaps, without return to competencies [6-10].

Strategy

In the Endurance Training Center, the dynamic check of the equines will be carried out prior to the exercise established by the trainer. After this, the trot is observed again to diagnose different degrees of claudication that may occur.

All equines that present some degree of trot irregular or claudication, they will undergo a general objective examination of the locomotor system by observing straight line trot on firm ground, straight line trot on sandy ground, trot in circle towards both sides on a firm sand floor (to avoid possible accidents such as slipping), flexion test to check the functionality of the joints (in the same flexion) metacarpophalangeal, proximal interphalangeal and the distal interphalangeal joint. Flexion test to corroborate the presence of pain in the Origin of the Suspensory Ligament and flexion test to check the functionality of the shoulder joint. These flexion tests will be performed for both limbs [11-15].

Medication Management

Corticosteroid as Triamcinolone acetonide, Betamethasone and Isoflupredone acetate were using strategically in joints and ligaments injuries.

Sodium pentosan polysulfate and Sodium Hyaluronate were medicine to improve function of the joints for their activity. The goal of regenerative medicine is to restore the normal structure and function of injured tissues, with the three main components of regenerative medicine: cells, bioactive signals, and the extracellular matrix that serves as a support for cell proliferation and tissue generation. Platelet rich plasma (PRP) and autologous conditioned serum or plasma (IRAP) is two of the main orthobiological products currently used in equine musculoskeletal injuries [16,17].

Exercise Program

Then, a new program of exercise was established to improve the

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athletic condition of the horses for 19-20 race seasons.

Equine training is increased, starting from the 60-days rest period with recovery process, to reach normal daily exercise in the competition season:

- First stage is to walk with the rider on firm ground (30 days).
- Second stage is to walk on the sandy track (30 days).
- Third stage is trot in sandy track, 10 to 12 km daily.
- Fourth stage is to gallop 20 km daily.

After those stages, they enter the exercise with two daily stages, 20 km in the morning and between 10 and 15 km in the afternoon, depending on the different equines and sports progress they are achieving.

In normal training evolution, they will prepare for long distance training:

- They begin with a stage of 40 km.
- Training of 60 km, 40 km with 30 minutes of recovery and 20 km more.
- Training of 80 km is done in two stages of 40 km each.

After these different steps, they choose the ready equines to be able to compete over distances of 80, 120 or 160 km.

This package of activities and protocol of medical management was effective because we had horses with better performance than others season (Figures 1-3).

Figure 1: Monthly events lameness data is particularly important to understand the exercise level between training systems with races. Different pathologies distribution in lameness qualification gave information about groups of injuries *Graphics information is every 100 horses

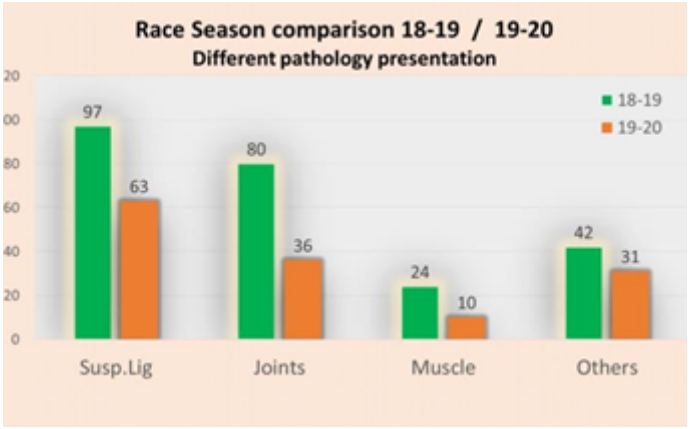

Figure 2: Comparison of different pathologies presentation in training horses between 2018-2019 and the 2019-2020 race seasons *Graphics information is every 100 horses

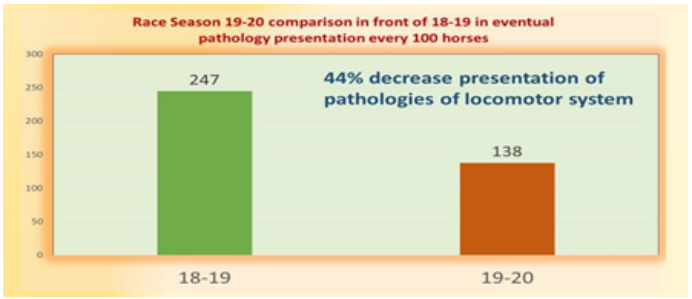

Figure 3: That recovery stage showed and important decrease of lameness events. Trainers had the possibility to improve the training system with more distance and better average speed. At the same time, they were achieving better race results than before, and even increased the percentage of races completed. *Graphics information is every 100 horses.

Conclusion

I worked in different topic to decrease lameness presentation

- Registered all information that I had the possibility to management.
- Check horses trot before and after training.
- Tried to do early lameness diagnosis.
- Check irregular trot always.
- Select the best treatment that the injury advised me.
- Recovery process programed.
- Complement the farrier service with communication and X Rays was especially important
- Checked training evolution with history, quantity and types of lameness that the horses presented.

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