
Profiling long-term consequences of interference injuries to the palmar aspect of the fore limbs in Standardbred racehorses in training

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Introduction:

In Standardbred racehorses (STBRs) “flying trot” is so extended that hindlimbs overstep outside of the forelimbs during the swing phase of the stride. Interference injuries (IIs) occur when ipsilateral hindlimb or contralateral forelimb hoofs traumatize soft tissues in the palmar aspect of the forelimbs. Our objective was to characterize IIs in order to evaluate long-term consequences on the athletic career of animals.

Materials and Methods:

Retrospective study on 75 STBRs with IIs at the palmar aspect of the forelimbs, observed over a period of 5-years. All cases with a sharp wound/skin bruising of the palmar aspect of the forelimbs were included, when an II was confirmed by history and video-record of a race. We classified IIs on the basis of anatomical structures involved referring to ultrasonographic anatomy. Individual data were analysed, and a descriptive analysis performed. The percentage of horses returned to training was established by K-M survival curves.

Results:

The most common site for IIs was the palmar metacarpal region. In most cases (89%) there was concurrent injury of SDFT. Outcome was mainly related to the presence of traumatic tendonitis of SDFT. Survival analysis showed significant differences in the fraction of animals returned to training, in relation to the affected portion of the SDFT.

Discussion / Conclusions:

STBRs with IIs at the mid-metacarpal level and traumatic tendonitis of the SDFT have a longer time to recovery and a worse prognosis for racing. Traumatic tendonitis of SDFT is the first determinant in establishing the long-term prognosis for racing.