Intralesional injection of Equitend® for treatment of superficial digital flexor tendonitis: results of a multicentric double-blind and controlled clinical trial on 22 French Standardbred trotters

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Equine Veterinary Journal - Abstracts - Manuscript ID EVJABS-2016-026 [email ref: SE-6-a]

Reasons for performing the study: ReGeneraTing Agents (RGTA) are nano-biodegradable-polysaccharides engineered to mimic heparan sulphates and have been shown to stimulate tissue repair and healing in several animal models of injury and in human medicine. A preliminary uncontrolled study on tendon healing in horses using injection of a dedicated RGTA (named Equitend®) showed encouraging results. **Objectives**: to evaluate the effect of a single intralesional injection of Equitend® versus placebo on the healing of acute superficial digital flexor tendonitis in racing French Standardbred trotters (ST). **Study Design:** randomised, double-blind, controlled, multicentric clinical study. **Methods:** Twenty-two ST were randomly assigned to receive Equitend® or saline intralesional injection under ultrasonographic guidance. Horses were followed over 4 months with clinical and ultrasonographic evaluations (day 0, months 1, 2, 4), and their performance criteria were obtained over 2 years after treatment. Reinjury rate, mean earnings per race, number of starts and victories before and after lesion were studied. **Results:** A significant decrease of cross sectional area over time was found in the treatment group compared with the placebo group. The Equitend® group presented a higher number of races (trend) and a significant higher number of victories after treatment than in the placebo group. Reinjury rate was higher in the control group (41.7%) than in the Equitend® group (15.5%), even though it was not statistically significant. **Conclusions** - The results of this study demonstrate a long-term beneficial effect of intralesional injection of Equitend® for the treatment of superficial digital flexor tendonitis on racing ST.

Ethical Animal Research: Institutional Animal Care and Use Committee of the National Veterinary School of Alfort approved the study protocol. The study involved client consent for inclusion and client confidentiality was maintained. **Source of funding:** French National Agency for Research (ANR). **Competing interests:** OTR3 employees (KK) hold some shares of the company. D.B. as founder and patent owner is a significant shareholder. S.J.G, A.G.D, V.C, N.C.D, S.L and J.M.D. disclose no conflict of interest.