

Furosemide Improves Racing Performance of Horses

The diuretic furosemide, commonly administered to race horses who suffer from "bleeding," a disorder known as exercise-induced pulmonary hemorrhage (EIPH), improves the racing performance of horses who do not suffer from the disorder, a new study has shown.

The study, the first to test the effect of furosemide on the performance of non-bleeders, was published in the May 1990 issue of the *American Journal of Veterinary Research*. It was conducted by University of Pennsylvania veterinarians Corinne Raphael Sweeney, Lawrence R. Soma and Abby D. Maxson. Other members of the Penn research team were Joseph E. Thompson, Susan J. Holcombe and Pamela A. Spencer. The project, which was conducted at the Philadelphia Park Racetrack during the 1988-89 racing season, was funded by The Jockey Club.

The researchers administered furosemide, widely-known by the trade name Lasix, to 79 Thoroughbred race horses for a single race after first determining that they did not suffer from EIPH. Performance in that race was compared to the horses' performance in two other races run without the drug.

The study found that the horses without EIPH raced an average of 0.48 seconds, or 2.4 lengths faster for a one-mile race when given furosemide. Geldings showed the greatest improvement in racing time while on the drug, averaging 1.08 seconds, or 5.4 lengths faster.

The average improvement in racing times while on furosemide for female Thoroughbreds was .42

seconds, or 2.1 lengths for a one mile race; the group of colts studied showed minimal improvement in performance — less than one-half length — while on the medication. The researchers felt that the difference in improvement among the sex groups was related not to gender but more likely to age because the geldings were, on the average, older.

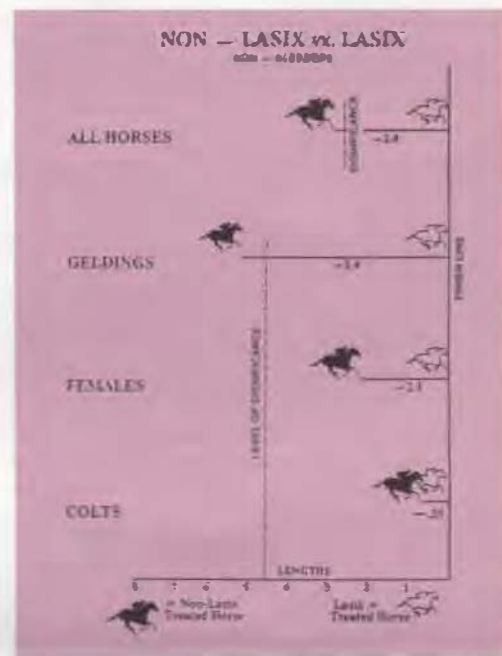
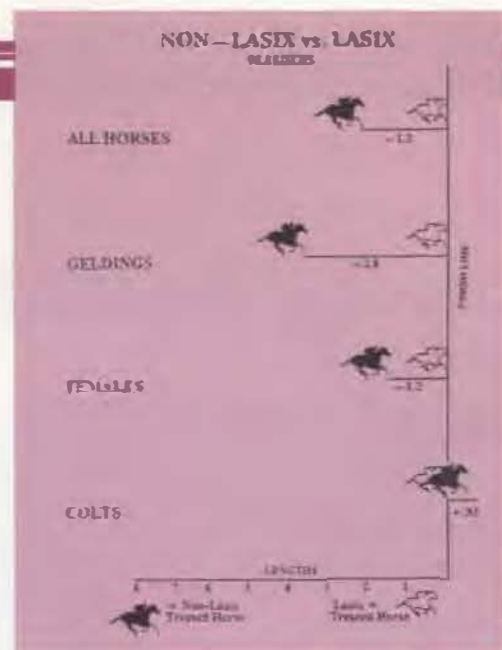
The group also examined the effects of the drug on the racing performance of 52 bleeders. The study found that the drug improved the racing time of the horses with EIPH, although the improvement was .26 seconds, or 1.3 lengths. Geldings improved by .56 seconds, or 2.8 lengths; females by 0.23 seconds, or 1.2 lengths; and colts showed no improvement in race time.

In the course of the study, the Penn researchers found that the drug failed to stop bleeding in 32 (62 percent) of 52 bleeders treated with the drug. Furosemide also failed to prevent the development of bleeding after racing.

Racing times for the population of horses at Philadelphia Park indicated one-fifth of a second equalled 1.4 lengths at one mile. The equation of one-fifth of a second equals one length, while not accurate for all populations, is used traditionally. For that reason all the aforementioned lengths are reported using this traditional equation.

Because of the prevalence of EIPH in Thoroughbreds, nearly 700 horses had to be screened for the study to identify 79 horses that were free of the disorder after three races.

Phyllis Holzman



The Pet Memorial Program

The Pet Memorial Program at the Veterinary Hospital of the University of Pennsylvania is supported by veterinarians who thoughtfully donate monetary gifts to the Veterinary School "in memory of" pets which had to be euthanized. Although euthanasia is a sad and difficult situation, the pain may be lessened by the knowledge that the veterinarian understands and shares some of the owner's grief and that pet memorial donations are used by VHUP to further teaching and service programs.

The Pet Memorial Program has been gaining momentum since its inception in 1982. Compared to last year, for example, the number of veterinarians participating in the Program has increased from 90 to 106 and gifts have been received from veterinarians practicing in 18 different states (up three from last year). The dollar total donated in fiscal year 1989-1990 was \$12,876, an 18% increase over the previous year!

We would like take this opportunity to welcome any new participants to the program and to extend our gratitude to the following veterinarians for their support of the Pet Memorial Program:



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