Factors Influencing Foaling Rate After Colic Surgery in Pregnant Thoroughbred Mares in Central Kentucky

Rolf M. Embertson, DVM, Diplomate ACVS*; Niklas Drumm, DVM; J. Brett Woodie, DVM, MS, Diplomate ACVS; Scott A. Hopper, DVM, MS, Diplomate ACVS; and Alan J. Ruggles, DVM, Diplomate ACVS

The prognosis for pregnant Thoroughbred mares to deliver a live foal after colic surgery is significantly better if she is ≥40 days pregnant, ≤15 years of age, and has demonstrated signs of colic for ≤5 hours before surgical intervention. Author’s address: Rood and Riddle Equine Hospital, PO Box 12070, Lexington, KY 40580-2070; e-mail: rembertson@roodandriddle.com. *Corresponding and presenting author. © 2012 AAEP.

1. Introduction
The primary purpose for this paper was to determine the presence of a relationship between foaling rate and gestational age. Our clinical experience suggested there was such a relationship.

2. Materials and Methods
The patient database at Rood and Riddle Equine Hospital was reviewed for Thoroughbred mares older than 2 years that had colic surgery performed between 1993 and 2007. Mares were included in the study if their medical record indicated that on admission they were pregnant or had been bred in the 15 days before admission. Mares were considered to have a live foal if that foal was registered with the North American Jockey Club.

3. Results
Two hundred sixty-eight mares met the inclusion criteria, with 63.4% (170/268) successfully delivering a live foal after colic surgery. For mares determined pregnant prior to admission (≥16 days of gestation), 66.7% (152/228) had a live foal. Mares pregnant for 17 to 39 days at surgery had a 48.7% (19/39) foaling rate, and mares pregnant for ≥40 days had a 69.8% (118/169) foaling rate (P = 0.01).

4. Discussion
This paper supports our clinical impression that there was a relationship between gestational age and foaling rate after colic surgery. This finding had not been supported by previous studies.