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Cumulative stress-induced injury of the distal cannon bones carries a favorable prognosis in Thoroughbred racehorses. Definitive diagnosis includes localization of lameness with diagnostic anesthesia and confirmation with nuclear scintigraphy and/or radiographic examination. Authors’ address: Rood and Riddle Equine Hospital, PO Box 12070, Lexington, Kentucky 40580; e-mail: ttull@roodandriddle.com. © 2009 AAEP.

1. Introduction
The objective of this study was to evaluate the diagnosis, treatment, and prognosis of Thoroughbred (TB) racehorses diagnosed with cumulative stress-induced bone injury (CSBI) of the distal third metacarpal/metatarsal (MC/TIII) bone.

2. Materials and Methods
The records of TB diagnosed with CSBI of the distal MC/TIII by one author (L.R.B.) between January 2000 and January 2009 were reviewed. Inclusion criteria included nuclear scintigraphy (NS), lameness examination, diagnostic analgesia, and metacarpal/tarsal radiographs. Pre- and post-diagnosis performance variables were compared with paired t tests, analysis of variance, and bivariate analysis. The study included 55 horses.

3. Results
After a diagnosis of CSBI of the distal MC/TIII, 85% of horses started and 62% maintained or improved their class. There was no significant difference in total earnings, although the earnings per start decreased and number of starts increased. Average number of days until first start was 218.

4. Discussion
CSBI of the MC/TIII carries a favorable prognosis in TB racehorses, as 85% of cases in this study started and had no significant decrease in total earnings, and 62% were able to maintain their class or improve. Definitive diagnosis includes localization of lameness with diagnostic anesthesia and confirmation with NS and/or radiographic examination.