Preliminary Investigation of the Treatment of Subchondral Cystic Lesions in the Equine Medial Femoral Condyle With a Transcondylar Bone Screw

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Stifle subchondral cystic lesions can be successfully treated by placement of a transcondylar screw. Authors’ addresses: Department of Veterinary Clinical Sciences, The Ohio State University, 601 Vernon L. Tharp Drive, Columbus, OH 43210 (Santschi, Williams, Bertone); Equine Medical Associates, 996 Nandino Blvd., Lexington, KY 40511 (Morgan); Woodford The Equine Hospital, 3550 Lexington Road, Versailles, KY 40383 (Johnson); Manor Equine Hospital, 15801 Old York Road, Monkton, MD 21111 (Juzwiak); e-mail: santschi.5@osu.edu. *Corresponding and presenting author. © 2013 AAEP.

1. Introduction
Subchondral cystic lesions (SCL) in the medial femoral condyle (MFC) of horses can cause lameness. Our objective was to use an MFC transcondylar screw to promote cyst healing and reduce lameness.

2. Materials and Methods
A 4.5-mm lag screw was placed across the MFC SCL in horses with hind limb lameness caused by SCL. Postoperative radiography and lameness examination were performed at 30- to 60-day intervals for 120 days, and SCL healing and lameness were graded. Treatment was considered successful if lameness was eliminated and ≥50% bone healing occurred in the SCL by 120 days after surgery.

3. Results
Twenty horses had 27 limbs treated. Nine horses had adjunctive biologic agents placed into the cyst. In all horses, lameness was reduced by one to two grades by 60 days after surgery, and in 15 horses it was abolished by 60 to 120 days. At 120 days, the mean amount SCL healing was 70%. Of the 15 successes, all are in work (mean follow-up of 12 months) without stifle lameness. Successful treatment occurred in 78% of horses treated with biologic therapies and in 73% without biologic therapies. Three of the five failures had additional injuries to cartilage, meniscus, or tibia, one apparent at surgery and two after surgery.

4. Discussion
Transcondylar screw placement promotes SCL healing and lameness reduction in approximately 75% of all treated stifles. The simplicity of the technique and lack of specialized equipment required should make it an attractive option to equine surgeons.