Factors affecting live foal rates of Thoroughbred mares that undergo manual twin elimination.

Schnobrich MR, Riddle WT, Stromberg AJ, LeBlanc MM.

Source


Reasons for performing study

Mares diagnosed with twin vesicles at 13-17 days after ovulation commonly have one of 2 vesicles manually reduced. It is not known whether vesicle location (adjacent vs. nonadjacent), mare age, mare reproductive status, parity, month of breeding or mare plasma progesterone concentration affects live foal rates. The aim of this study was to determine factors associated with a positive outcome (live foal) in mares undergoing manual twin reduction between 13 and 17 days post ovulation when performed by a single operator.

Materials and methods

Breeding records and the Jockey Club records of registered Thoroughbreds were examined retrospectively and used to evaluate factors affecting the outcome of pregnancies in mares undergoing twin elimination and mares with singleton pregnancies. Thoroughbred mares with twin pregnancies (n = 129) were matched by age, parity, farm location and month bred with mares diagnosed with a singleton pregnancy (n = 127). The effects of location of embryonic vesicles, mare age, reproductive status, parity, month of breeding, vesicle size and plasma progesterone concentration at pregnancy diagnosis on live foal rate were examined.

Results

Position of embryonic vesicles at time of manual elimination, parity and month bred had no effect on live foal rate. Live foal rates in mares >9 years of age were lower (71.8%) than in all mares ≤9 years (87.1%; P<0.05). Mares >9 years of age that had a twin reduced lost more pregnancies (34.8%) than age-matched control mares (20.0%; P<0.005). Mean plasma progesterone concentration of twin-reduced mares was greater than in control mares when compared on the same day post ovulation. Plasma progesterone concentrations did not differ between mares that lost their pregnancy and those that delivered a live foal.

Conclusion and clinical relevance

Mare age of >9 years is associated with decreased pregnancy rate after twin reduction.

Preliminary investigation of the treatment of equine medial femoral condylar subchondral cystic lesions with a transcondylar screw.

Santschi EM1, Williams JM, Morgan JW, Johnson CR, Bertone AL, Juzwiak JS.

Source


Reasons for performing study

To determine if medial femoral condylar (MFC) subchondral cystic lesions (SCL) causing lameness will demonstrate radiographic evidence of healing and lameness reduction after placement of a transcondylar screw in lag fashion.

Materials and methods

A retrospective case series of horses (n = 20) with lameness attributed to a MFC SCL. A 4.5 mm screw was inserted in lag fashion across MFC SCL in horses with hindlimb lameness. Post-operative radiography and lameness examinations were performed at 30-60 day intervals after surgery for 120 days, and SCL radiographic area and lameness were graded. Treatment was considered successful if lameness was eliminated and the radiographic area of the SCL on a caudocranial projection decreased ≥50% by 120 days.

Results

Twenty-six limbs were treated. Nine horses (11 limbs) had autologous adjunctive biologics placed into the SCL. Lameness was reduced by 1-2 grades by 60 days after surgery in 18 horses and was eliminated in 15 horses by 120 days, at which time the SCL area had decreased ≥50% and work had resumed without lameness (mean follow-up, 12 months). Biologic therapies had no impact on treatment success. Treatment was less successful in horses >3 years of age.

Conclusions and clinical relevance

A MFC transcondylar screw decreases the area of a MFC SCL on craniocaudal radiographs and eliminates lameness in ≥75% of horses by 120 days. The simplicity and lack of specialized equipment required make this technique a useful option for the treatment of equine SCL causing lameness.