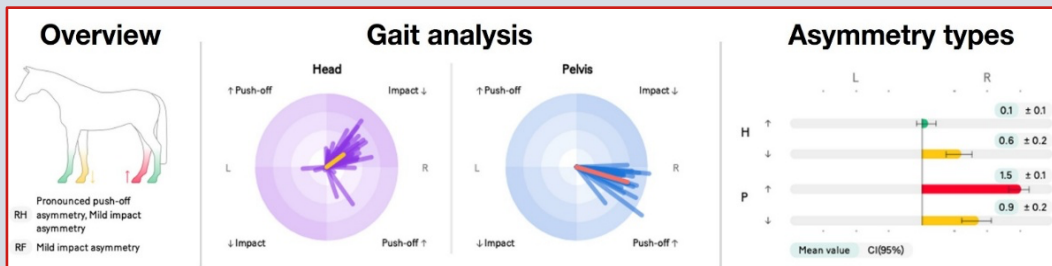
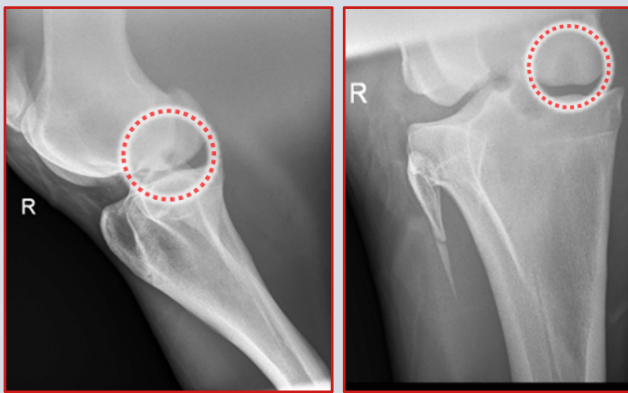


CASE STUDY

Subchondral Cystic Lesion in Stifle Joint: Barry

March 13, 2025

A 3-year-old Quarter Horse stallion presented for a gait evaluation. Physical examination revealed mild effusion of bilateral medial femorotibial joint pouches. The horse demonstrated a grade 3/5 lameness of the right hind limb. Radiographic examination of the right hind stifle identified a subchondral bone cyst within the medial femoral condyle. Objective gait analysis using AI system identified a pronounced push-off asymmetry of the right hind limb, consistent with the degree of lameness appreciated on clinical examination. Based on these findings, the patient was discharged with instructions to begin a polysulfated glycosaminoglycan (Adequan®) series and a surgical consultation was requested. Based on recommendations from the surgical consultation, it was elected to pursue intra-articular medical management prior to surgical intervention.



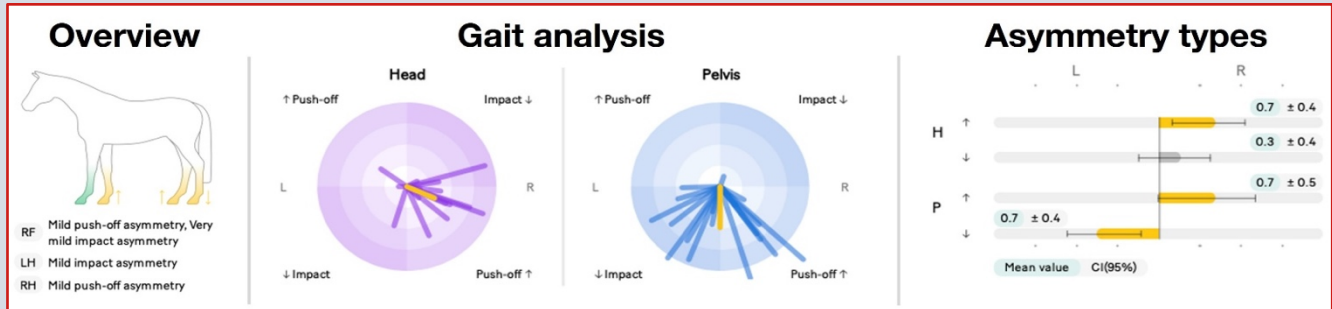
Objective gait analysis was performed at multiple time points for each case using an artificial intelligence–based lameness detection system (SLEIP), which employs inertial motion sensors and machine-learning algorithms to quantify limb movement asymmetries during locomotion. Objective gait analysis systems such as SLEIP provide quantitative, unbiased assessment of equine lameness, addressing key limitations of subjective visual evaluation.

March 27, 2025

The right medial femorotibial joint was injected with 2 mL of Stanozolol (5 mg/mL). The patient was discharged on strict stall rest with 10 minutes of hand walking daily.

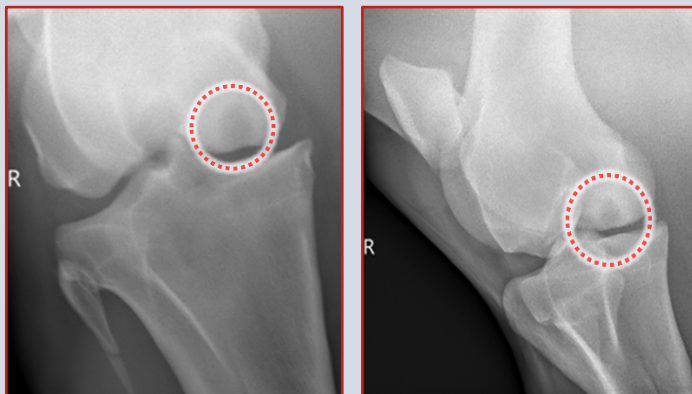
April 9, 2025

The patient was re-evaluated and demonstrated mild improvement and a 2/5 lameness of his right hind limb was present. Objective gait analysis using AI system demonstrated improvement, with findings consistent with a mild right hind push-off asymmetry. The treatment plan was to delay further intervention until StrideGUARD™ was available for use. During this period, the patient was maintained on stall rest with limited turnout in a small round pen.



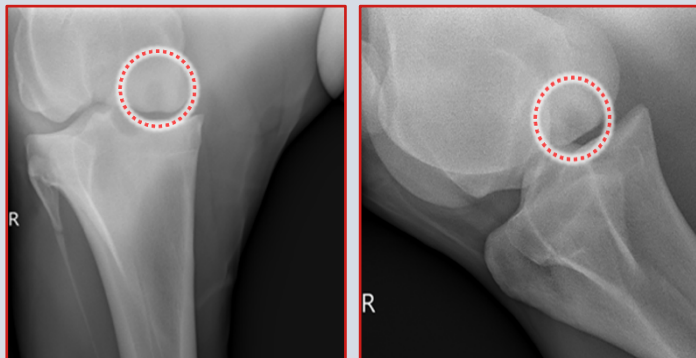
July 9, 2025

The patient returned and radiographic examination demonstrated only 40% filling of the subchondral bone cyst. The patient then presented for the first StrideGUARD™ injection and was adequately sedated, with the injection site aseptically prepared. Using an 18-gauge needle, the product was drawn up under sterile conditions and combined with 1.0mL of sodium bicarbonate for a total volume of 1.5 mL. The preparation was injected into the medial femorotibial compartment of the right hind stifle using a 20-gauge 1.0-inch needle. The patient was discharged with a three-day course of non-steroidal anti-inflammatory medications and a gradual rehabilitation program was initiated. The patient initially responded well post-injection; however, approximately 25 days following treatment, the patient demonstrated a return of lameness.



August 7, 2025

The patient was re-evaluated and demonstrated a grade 4/5 right hind lameness. Repeat radiographic images showed improvement of the subchondral cyst; however, irregularity was noted in the region of the medial meniscus. Ultrasonographic evaluation of the medial meniscus revealed an approximately 30% increase in size. The patient was treated with 2nd StrideGUARD™ injection into the medial femorotibial joint pouch. The patient was discharged with instructions for 30 days of stall rest and a 30-day course of nonsteroidal anti-inflammatory medication. In addition, a series of three extracorporeal shockwave treatments were performed at two-week intervals.



September 15, 2025

A re-evaluation was performed at which time ultrasonographic examination demonstrated an approximately 50% reduction in meniscal enlargement, and follow-up imaging showed approximately 90% filling of the subchondral bone cyst within the medial femoral condyle. Following two StrideGUARD™ treatments, repeat objective analysis performed revealed only a very mild residual push-off asymmetry. At the time of final follow-up, the horse had returned to full work and competition. Based on these improvements, a controlled rehabilitation program under saddle was initiated, as undersaddle exercise was deemed more appropriate than in-hand work.

