

Routine Orthopedic Evaluation in Foals



Robert J. Hunt, DVM, MS*, William True Baker, DVM

KEYWORDS

• Foal • Musculoskeletal • Examination

KEY POINTS

- In order to recognize abnormalities on the physical evaluation, it is mandatory to understand normal developmental variations of the musculoskeletal system.
- Many abnormalities are self-limiting and, therefore, it is important to recognize which problems require intervention for a successful outcome and which may be complicated by treatment.
- Physical evaluation of the musculoskeletal system in foals is routinely performed on newborns as a component of an after-foaling examination, or for lameness or conformation evaluation in foals of all ages.

There are a multitude of disorders of the musculoskeletal system of foals that present during the development of the foal from the time of parturition onward. In order to recognize abnormalities on the physical evaluation, it is mandatory to understand normal developmental variations of the musculoskeletal system.^{1–5} Many abnormalities are self-limiting⁶ and, therefore, it is important to recognize which problems require intervention for a successful outcome and which may be complicated by treatment.⁷

The importance of a complete and thorough physical evaluation cannot be overemphasized and is the most productive diagnostic tool for recognizing most abnormalities of the skeletal system. It should form the basis for a final diagnosis of all orthopedic disorders or guide the clinician toward other diagnostic modalities to arrive at an accurate diagnosis. Physical evaluation of the musculoskeletal system in foals is routinely performed on newborns as a component of an after-foaling examination, or for lameness or conformation evaluation in foals of all ages.⁴

Foals are unique in several regards compared with other age groups of horses. The behavior of foals makes them inherently more challenging to complete a thorough physical and locomotor evaluation. It is important to exercise patience and work slowly when evaluating the foal whether examining the body or the extremities.

Hagyard Equine Medical Institute, Davidson Surgery Center, 4250 Iron works Pike, Lexington, KY 40511, USA

* Corresponding author.

E-mail address: rhunt@hagyard.com

Vet Clin Equine 33 (2017) 253–266
<http://dx.doi.org/10.1016/j.cveq.2017.03.011>

0749-0739/17/© 2017 Elsevier Inc. All rights reserved.

vetequine.theclinics.com

Becoming familiar with the foal and palpating normal areas to gauge the foal's behavioral response will help differentiate this from a pain response to palpation.

Another unique feature of foals is that they are particularly vulnerable to injury from external sources, such as impact injuries from other horses, running into objects, or sustaining injuries from mal-loading a limb or falling.⁸ Foals are also susceptible to septic conditions of the skeletal system, including hematogenous osteomyelitis, septic arthritis, or external wounds resulting in sepsis.^{9–17}

Foals are also unique in that they have a relatively rapid progression of pathologic processes in which there may be alarmingly quick deterioration requiring only a few days for permanent degenerative changes to occur in bone and soft tissue. Fortunately, the converse may occur with rapid resolution of a disease process, and it is well recognized that foals appear to be able to restore specific tissues much better than adults.

There are many conditions in foals that are specific to a given age group. There should be a general understanding of which of these are most likely to occur for the individual foal being examined. Disorders resulting in lameness and/or gait deficits in foals are common, and the physical evaluation is the most important means for differentiating the cause. Evaluation for lameness is generally preceded by a history that will often raise suspicion for a given disorder. Factors to consider in the history include awareness of any recent management changes, suspected traumatic events, presence of herd health issues, and a record of the foal's health history.

ORTHOPEDIC EVALUATION

An assessment of the physical health, including temperature, vital parameters, demeanor, overall condition and body score of the foal, stance, any obvious conformational aberrations, swellings, or other physical anomalies, should be noted. It is helpful to observe the foal rising from a recumbent position and unrestrained to determine if there is a gait deficit or reluctance to load a limb or display any positional abnormalities of a limb or body carriage. Initiation of the gait from a standing position is also helpful to detect subtle gait deficits. Observation of the foal at a walk when evaluating for conformation or lameness must be performed with the foal relaxed and not pulling on the handler. It may be necessary to allow the foal to follow the mare as long as the environment is safe.

All evaluations begin with a thorough history and visual inspection at rest and in motion and are followed up with an in-depth and thorough evaluation by palpation when possible. Observation of the gait in a lame foal can be intriguing and very telling in that oftentimes the slower the gait, the easier it is to determine the origin of pain. Even with a moderate lameness, foals often pick the lame limb up and carry it rather than display a limp; therefore, evaluation at the walk may be more productive through observation of limb carriage and flight pattern along with foot placement and lift off. It should be noted if a particular component of the stride is shortened or prolonged. Given that the manifestation of lameness is an avoidance response to pain, it is often relatively simple to determine the component of the gait they are attempting to avoid.

Palpation of foals may be intimidating and seemingly nonproductive if the foal is not acclimated to handling; however, with patience and by gaining trust and confidence from the foal, a thorough palpation may be accomplished. It is important to begin in areas that are normal and gradually ease into suspicious areas. If possible, the contralateral normal structure should be palpated initially to gauge the foal's response before manipulating an area of concern.

Download English Version:

<https://daneshyari.com/en/article/5544376>

Download Persian Version:

<https://daneshyari.com/article/5544376>

[Daneshyari.com](https://daneshyari.com)