When it comes to performance, clinical judgement will always be necessary.“ That said, she added, “in general, osteochondrosis increases the likelihood of untoward downstream effects, understanding of them is much greater in racehorses than in other breeds and disciplines.

Osteochondrosis should be evaluated on an individual basis,” she said. “Because (enthesophytes) can occur at such a wide variety of locations for a wide variety of reasons, each case lameness. Ultimately, the veterinarian must examine each horse and bone spur individually to determine if the

Spurs at some sites, such as on the upper portion of the cannon bone and the upper inside portion of the tibia (the ligament attachments)

Bone Spurs

Regardless of the type of bone chip, Puchalski said identifying the lesion and accurately characterizing it will

lesions' influence on performance

On the other hand, the effects of smooth

However, surgically removing the chip can help mitigate those impacts, she said. Generally speaking, Puchalski said, dorsoproximal P1 fractures are associated with reduced performance.

Bone chips

Puchalski reviewed several abnormalities veterinarians commonly identify on radiographs and what researchers

confound direct evaluation of performance outcome in studies evaluating imaging versus performance,” she

horse's natural talent and ability, training programs, rider or driver ability, the goals for the horse, and more.

Another important factor to consider is that not all disciplines place the same physical demands on the horse,

level dressage horses, for instance, perform more complex movements with more collection than lower

problems, there's a good chance this one could.

veterinarian. And just when you think the deal is done, the veterinarian takes a radiograph, pauses, and points out

Do Radiographic Abnormalities Impact Equine Performance?

The easiest situation to interpret is when these findings are limited to the lame leg, in a site localized via

abnormalities in these horses. However, not all affected horses present in the same manner

The lack of objective data for comparison between horses with and without lesions makes scientific study

measure such successes and failures.

Performance

must rely on experience and research to make their best educated guess on the issue's impact on performance

lesions in horses with unilateral lameness,” she relayed.

"Often these abnormalities are seen in sound horses presenting for prepurchase or sales evaluation, or as bilateral

Research has also started to look at the relationship of these abnormalities with performance. This is a common scenario for sport horse practitioners. At the American Association of Equine Practitioners’ Focus on Poor Performance meeting, held Sept. 10

Puchalski is a diagnostic imaging consultant based at Circle Oak Equine Sports Medicine, in Petaluma, California, and Palm Beach Equine Clinic, in Wellington, Florida.

ACVR, reviewed with attendees the associations between performance issues identified on radiographs.

Focus on Poor Performance meeting, held Sept. 10

Presentation Notes

"These studies have produced good guidelines for many commonly encountered lesions,” she relayed. Still, she

"These factors most likely have unequal and variable weighting on a horse's career, cannot be measured, and

But ultimately, she said, each horse is different, and the one question that remains the same is: What is the impact of this abnormality on the horse’s career? How will performance be affected? As the ACVR meeting demonstrated, imaging is only one part of the “big picture.” The overall performance of any sport horse is a product of many variables, and a radiograph can only provide one piece of that information.

These results can be confounded by the horse’s ongoing training, the condition of other joints, and the horse’s overall athletic ability. The horse's career length, ability, and conditioning level are also factors that can influence performance.

The ACVR meeting was a great opportunity to discuss and learn about these issues. Puchalski said it's important to understand that there are many variables that can affect performance, and imaging is only one piece of the puzzle.

The American Association of Equine Practitioners’ Focus on Poor Performance meeting was held in September, and the ACVR meeting was held in October. Both meetings brought together experts in the field of equine radiology and performance to discuss the relationship between radiographic abnormalities and equine performance.

"The relationships between radiographic abnormalities and equine performance are complex, and there are many factors that can influence performance," Puchalski said. "But imaging is a valuable tool for veterinarians, and understanding these relationships can help improve the performance of our sport horses.”