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Supporting-Limb Laminitis Uncommon

Supporting-limb laminitis (SLL) describes laminitis that develops in a foot opposite a lame leg. While the risk of SLL occurring is slight, recent study results show that it might be preventable in some cases.

In a large equine referral clinic in the United Kingdom, only 0.02% of horses considered at risk for SLL actually developed the disease, said Claire Wylie, PhD, MSc, BVMS, veterinary epidemiologist at Rossdales Equine Hospital, in Newmarket. Her research was the first to accurately define the overall prevalence of SLL in a hospitalized equine population. And interestingly, she said, not all of the SLL-afflicted horses had non-weight-bearing lameness.

"It makes sense that a horse with such a severe lameness will overload its contralateral limb more than a milder lameness, but there are likely a multitude of factors," Wylie said. "I would like to investigate whether the cases that do develop SLL have a degree of insulin resistance that could be exacerbated by lack of exercise, changes in feeding, et cetera, and could therefore be related to a combination of other underlying factors."

Of more than 65,000 patient records from horses admitted between 2005 and 2013 to Rossdales Equine Hospital, one of Europe's largest equine referral clinics, only nine horses, one pony, and one donkey developed SLL, she said. And the primary reason for admittance into the hospital seemed to have little connection with the development of the disease. There did appear to be a slight relationship with one condition—a non-chipping carpal fracture (Wylie explained that knee, or carpal, fractures are often "chip" fractures, which are a consequence of osteochondritis dissecans [OCD]; this group refers to those fractures which are probably not related to OCD, whether or not they are displaced)—as 16.6% of the horses admitted for this condition developed SLL. However, as only six patients were admitted for carpal fracture to start with, the percentages are not very reliable, she said.

Because SLL incidence is so low, even in a referral hospital where veterinarians are more likely to see these cases, it's difficult to find any risk factors for the disease, said Wylie. In fact, to get a good look at SLL risk factors from a scientific point of view, given the low incidence rate, she said she would need to analyze about 123 years of collected data.

Risk factors in non-weight-bearing lameness cases were also challenging to investigate, since more than a third of the study horses with the inability to bear weight on one limb were euthanized because of the initial injury, she said. "Perhaps in our hospital, for reasons that may boil down to economics, we would opt for euthanasia at a stage earlier than some of the described cases in papers on SLL coming from the U.S.," she said. "Owners who could handle the costs involved, the responsibilities of care, and the welfare issues along the way would certainly be few and far between in this country."

But even if SLL is less common than veterinarians previously thought, that doesn't mean it doesn't deserve our attention, Wylie added. After all, it could be that percentages are low in the 21st century because of what Wylie called a "self-fulfilling prophecy"—meaning veterinary efforts to reduce the prevalence of SLL are effective.

Regardless of the risk rate, though, prevention is still smart, she said. "It is prudent to apply prophylactic measures to counteract the forces which could be contributing to SLL—something as simple as provision of a deep shavings bed, adequate pain relief, and frog supports," said Wylie. "Implementing what are quite simple, cheap preventive measures is probably worth it even if it does just prevent that one case."

However, don't forget to manage the other sources of laminitis, she added. "Recent research has found that endocrinopathic diseases—such as equine pituitary pars intermedia dysfunction or equine metabolic syndrome—are, by far, the most common causes of laminitis in the general population. What this study has highlighted is that the efforts of owners and breeders to prevent laminitis of endocrinopathic/inflammatory origin is probably going to reduce the impact of the disease more" in the grand scheme of things than focusing solely on SLL, she said.

Wylie added that it's still not clear whether horses which develop SLL could have underlying endocrinopathic condition which could predispose them to developing the condition.

The study, "[Prevalence of supporting limb laminitis in a UK equine practice and referral hospital setting between 2005 and 2013: implications for future epidemiological studies](#)," was published in the *Veterinary Record*.

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