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What Can SAA Tell Us About Colic?

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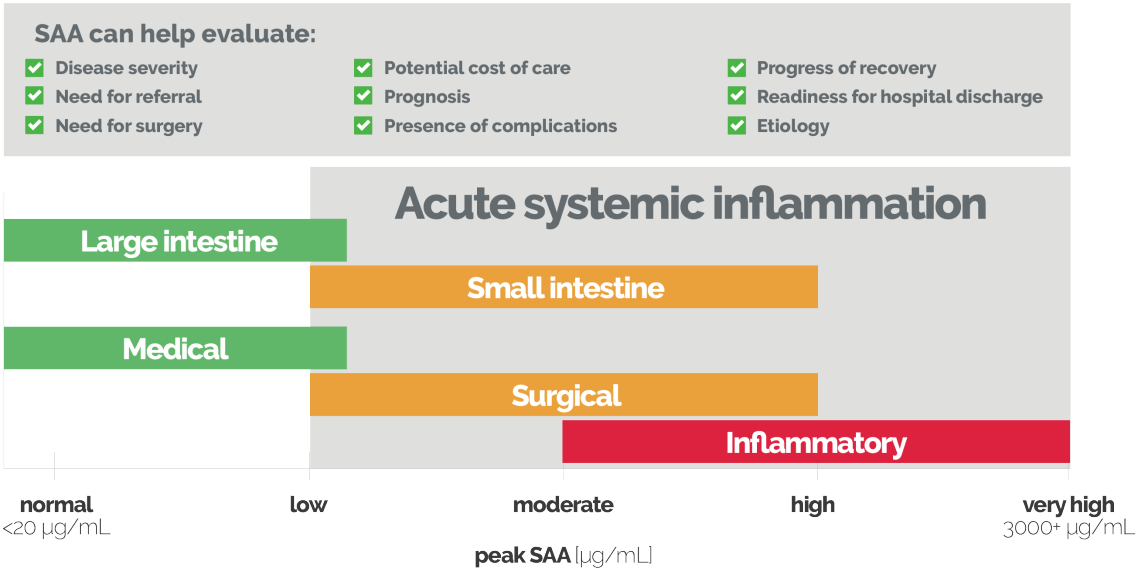
Colic can be one of the most rewarding and the most frustrating problems in equine medicine. Most cases are straightforward, however those that are not pose a constellation of challenges when making decisions for management. In many research studies and real-world situations, SAA testing has demonstrated value for multiple key aspects of colic management.

SAA can help assess disease severity

In concert with physical examination parameters and other diagnostics, SAA can provide valuable information in the assessment of a colic case. SAA concentration at initial presentation can help define disease severity and differentiate between possible etiologies, as well as providing a baseline for later comparison as the horse's condition changes. SAA values can also offer input on prognosis, potential cost of care, risk of complications, and potentially need for surgery.[1-7]



Elevated SAA may be an indication for referral

While over 90% of colic cases are relatively simple and can be treated on-farm, the decision to refer is often critical for others. Testing SAA on-farm can help determine if referral is advisable, as elevated SAA is indicative of etiologies for which a higher level of care is likely required.[5-8] Colic cases that can be resolved medically and do not have a primary inflammatory cause tend to have low to normal SAA values.[1] If a horse is medically managed, either on-farm or at a referral hospital, re-evaluation of SAA can help track clinical condition and resolution of disease.

The greatest elevations in SAA are seen with inflammatory causes of colic

Since SAA increases with acute, systemic inflammation, elevations will be seen with some etiologies and not with others. The highest levels of SAA in colic cases are found with acute colitis, enteritis, peritonitis, or other inflammatory issues[5,8-10] all of which are likely to require advanced care. Higher values are also associated with more severe disease, such as small intestinal lesions and SIRS.[1-3] This also means that SAA tends to be higher in cases that will cost more to treat.

SAA can help with surgical decisions and monitoring

In the absence of a primary inflammatory etiology such as colitis, SAA is more likely to be high in colicky horses requiring surgery versus those that can be medically managed.[1] However, it is important to understand that peracute, severe issues such as colon torsion may initially have normal SAA as it takes at least 6-12 hours to start increasing.

Following colic surgery, mild to moderate SAA elevation is expected as a direct result of surgery and primary disease, generally peaking at 72 hours post-op. However, values should begin to gradually decrease starting at 96 hours post-op.[1-3] Patients should therefore be checked at 72 hours to establish peak SAA, then ideally every 24-48 hours thereafter to track resolution of inflammation. Horses that develop post-operative complications generally remain at peak levels, and overall tend to have higher SAA in the first 1-5 days following surgery than those without complications.[2,3] At a minimum, all colic patients should be re-tested prior to discharge, as SAA should be decreasing or normal by this time.[2-4] If it is still elevated, the horse should be thoroughly evaluated for surgical site infections[4], catheter-associated thrombophlebitis, occult pneumonia, or other complications.

Colic is one of the most common issues encountered by equine practitioners, leading to many sleepless nights and stressful situations for both veterinarians and horse owners. Although SAA is not the only factor to take into account when considering the cause and treatment of colic, it provides an objective and valuable tool to aid in the decision-making process, leading to improved patient care.

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