

NEW TRENDS IN EQUINE PAIN MANAGEMENT

New trends are becoming apparent in the human and small animal veterinary markets in an attempt to improve the safety of NSAIDs. For instance, Surpass® (diclofenac sodium), a veterinary prescription topical cream that contains one of the traditional NSAIDs, has recently been approved for use in horses with arthritis. By locally applying the drug, it is likely that systemic effects on other organ systems will be avoided. As with all NSAIDs, owners should pay close attention to the instructions given to them by their veterinarian.

The advent of COX-2 inhibitors, which preferentially target inflammation and not normal organ function has dramatically reduced the incidence of ulcers in both people and dogs. At NC State, research is beginning to show the potential for COX-2 inhibitors for treatment of arthritis and colic in horses. For example, one study showed that the canine drug Etogesic® (etodolac), which preferentially inhibits COX-2, was just as effective for treatment of joint inflammation in horses as bute, but etodolac is less damaging than traditional NSAIDs in the colon. The reduced damage to the colon may be short term, however, as studies comparing the COX-2 drug celecoxib to ibuprofen and diclofenac in humans showed there is no difference in GI effect of the drugs when dosed for one year.

The recent withdrawal of the human drug, Vioxx® (rofecoxib), a systemic COX-2 inhibitor now associated with adverse cardiovascular effects (increased blood pressure, myocardial infarction and thrombotic stroke), is further evidence that more research is needed to understand the mode of action of these drugs and the role the COX enzymes play. Fortunately, equine veterinarians do not encounter cardiovascular disease nearly as frequently as human physicians treating people. The cardiovascular complications in people appear to result from the presence of COX-2 in the cardiovascular system in patients without inflammation. Horses may well have COX-2 in their cardiovascular system just as people do, but 'heart attacks' are very rare in horses, making this less of a consideration in equine medicine. It has also been shown that COX-2 is present in the kidney under normal circumstances in both people and animals. Because of the potential for adverse effects on the kidneys, veterinarians must be cautious with COX-2 inhibitors when they become available in the future.