Beware Bute's Adverse Effects, Researchers Recommend

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Phenylbutazone, or Bute, is an anti-inflammatory drug widely administered long-term for the management of painful musculoskeletal injuries, navicular syndrome, and osteoarthritis. While it is widely known that Bute can cause serious adverse events such as gastric ulcers or kidney dysfunction, most horse people believe adverse reactions to be rare and, therefore, not something to worry about. Researchers from Louisiana State University (LSU), however, warn the equine community that the potential complications caused by Bute should not be taken lightly.

"Phenylbutazone is one of the most commonly administered drugs for musculoskeletal injuries, and while it is reasonably well-tolerated in most horses at recommended doses and dosing intervals, serious adverse events that are potentially life-threatening can and do occur," explained Rebecca McConnico, DVM, PhD, Dipl. ACVIM, associate professor of veterinary medicine at LSU.

In the study, "Pathophysiologic effects of phenylbutazone on the right dorsal colon in horses," McConnico and colleagues administered Bute (8.8 mg/kg orally once daily for two weeks) or a placebo to assess the systemic effects of routine doses of Bute on healthy horses.

"Prolonged administration of clinically relevant doses of phenylbutazone caused low albumin and white blood cell blood levels during the first three days of treatment, increased arterial blood flow to the right dorsal colon, and decreased volatile fatty acid production in the colon," reported McConnico. These signs show that major metabolic pathways, digestion, and systemic blood flow, particularly to the large colon were markedly impacted.

Two horses receiving Bute developed colitis (inflammation of the colon) during the 21-day study period.

"These results demonstrate that there is extreme variability in how horses tolerate Bute administration," McConnico explained. "Some horses cannot even tolerate short-term administration of the drug."

McConnico and the study co-authors strongly recommend running routine hematologic (blood) tests as early as three to five days after initiating treatment with Bute. It's important to decrease or even discontinue administration if tests reveal even mild adverse events of hematologic abnormalities, "to avoid debilitating and life-threatening adverse effects."

The authors also pointed out that alternatives to Bute with proven clinical efficacy and fewer adverse effects are available and should be considered. McConnico suggested substituting **firocoxib** (a non-steroidal anti-inflammatory drug that targets cyclooxygenase-2, without hindering reparative enzymes) for Bute, as she says it is safer and equally effective.

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