

MEDICAL TREATMENT OF EQUINE COLIC

Before considering ways to manage signs of colic, the clinician should remember that such signs are very poorly localized. Therefore, although colic is most frequently associated with intestinal disease, dysfunction of other organ systems, including urinary obstruction, biliary obstruction, uterine torsion or tears, ovarian artery haemorrhage, and neurologic disease should be considered as differential diagnoses. However, the duration and severity of colic signs are excellent predictors of whether a horse requires surgical exploration of the abdomen. In fact, refractory pain supersedes all other predictors of the need for surgery in the colic patient. Once signs of colic have been recognized and categorized as to their severity, it is critical to rapidly and effectively nullify signs of pain, for the well-being of the horse and to reduce the owner's anxiety. In addition, it is becoming increasingly clear that pain is best managed before it becomes severe. There are several classes of analgesics readily available for treatment of horses with colic, including spasmolytics (N-butylscopolamine), α_2 agonists (xylazine, detomidine), opiates (butorphanol), and NSAIDs (e.g., flunixin meglumine). Although much of this information is very familiar to most practitioners, a couple of points should be emphasized. The short-duration drugs N-butylscopolamine, xylazine, and butorphanol, which provide analgesia either directly (xylazine and butorphanol) or indirectly (through cessation of intestinal spasm; N-butylscopolamine) for approximately 30 to 45 minutes, allow the veterinarian to determine if pain is recurrent within the time period of the typical examination. Alternatively, flunixin meglumine is not as potent as an analgesic, but its duration is much longer. In fact, the clinician should closely adhere to its treatment interval to prevent deleterious effects on gastrointestinal mucosa and the kidneys. The recent discovery of two isoforms of COX, the enzyme inhibited by NSAIDs, has provided drugs that can more selectively inhibit pro-inflammatory COX-2, while permitting continued constitutive production of prostanoids. This may be advantageous in horses with colic, particularly in light of recent evidence of reduced intestinal recovery from an ischemic event when subjects were treated with flunixin compared with a drug that is more selective for COX-2. The α_2 -agonist detomidine should be reserved for horses with severe, unrelenting pain

because of its tremendous potency in horses. In addition, it should be remembered that α_2 -agonists reduce the heart rate associated with a transient increase in blood pressure, thereby reducing the predictive value of the heart rate and pulse pressure.

TABLE SHOWING DRUGS USED IN TREATING EQUINE COLIC

DRUG	DOSAGE (mg/kg)	AMOUNT IN AN ADULT HORSE (mg)
Butylscopolamin	0.3	150-170
Xylazine	0.3-0.5	150-250
Detomidine	0.01-0.02	5-10
Butorphanol	0.01-0.02	5-10
Flunixin	0.25-1.1 every 8-12 hrs	125-500