Duration of Anesthesia & Recovery Time in Cats

The recovery rate of anesthetized cats was evaluated after induction of anesthesia, induction followed by 30-minute infusion, and induction followed by 150-minute infusion. The cats received each of the 3 treatments. Induction was carried out with a propofol bolus at 5 mg/kg per minute until the cat had a sluggish pedal withdrawal response. Anesthesia was maintained with an infusion rate starting at 0.4 mg/kg per minute and adjusted up or down to maintain the sluggish pedal withdrawal response. Significantly longer recovery times were required after the 150-minute infusion. This is in contrast to what is seen in humans and what has been previously reported in cats after a 90-minute infusion. In humans, propofol is primarily metabolized by glucuronidation. Cats do not have functional glucuronyl transferase, however, and this could explain the longer recovery times.

COMMENTARY: No changes in recovery rate were seen when propofol was used as an induction agent or when it was infused for 30 minutes. This study suggests that the infusion rate and duration of propofol be minimized in cats when used for maintenance of anesthesia.—Patricia Thomblison, DVM, MS