Topical Analgesic for Cats

Use of topical anesthetics to prevent the pain and discomfort of minor invasive procedures, such as venipuncture and catheter placement, in human patients is becoming increasingly popular. A lidocaine–prilocaine cream permits local absorption and provides high concentrations to the skin. Veterinary use of this product has been suggested in an experimental report of dogs, cats, and rabbits. The purpose of this pilot study was to determine the degree of systemic absorption and adverse clinical effects of the cream when used for local anesthesia before placement of a jugular catheter in 10 healthy cats (5 male, 5 female). A conservative maximum dose of 1 to 2 g over a 10 cm² area for 1 to 1.5 hr under occlusion has been recommended for children. For each cat, 1 g of cream was applied in a thick layer over a 2 x 5 cm area of closely shaved skin over 1 jugular vein. The area was then covered with a 6 x 7 cm occlusive bandage for 1 hr. Each cat was evaluated for local irritation; systemic absorption (before and 1 hr after application of cream); development of methemoglobinemia; and clinical evidence of gastrointestinal, neurologic, or cardiovascular complications.

RESULTS

• There were no signs of local irritation at the application site in any of the 10 cats.

• Concentrations of lidocaine and prilocaine in plasma were undetectable.

• No cat developed whole blood methemoglobin levels at any time after application of the cream.

• No gastrointestinal upset, neurologic signs, cyanosis, or distress was observed.

• Cats remained comfortable throughout the study.

COMMENTARY: Feline pain management has garnered so much interest because veterinarians are desperate for drugs. This is a useful, leadingedge article.— Katherine S. Gloyd, DVM