Possible Adverse Reactions to Amlodipine

Amlodipine is used to treat hypertension and although mild dependent edema is a common side effect in humans, severe diffuse edema is rare. In veterinary medicine, there have been only anecdotal reports of severe diffuse edema. This report described 2 cases in which amlodipine therapy was associated with severe generalized edema.

The first dog was treated for hypertrendicorticism and hypertension with trilostane and amlodipine (0.19–0.51 mg/kg/day). During 2 months of treatment, it developed progressively worse peripheral edema and gained 4.5 kg. On presentation, severe pitting edema of the face, limbs, ventral thorax, and ventral abdomen was noted. As the amlodipine dosage was decreased and eventually discontinued, the edema and weight gain resolved.

Three owners reported adverse effects on their quality of life and/or family life.

**Commentary**

An adverse or idiosyncratic reaction of severe peripheral edema in dogs treated with amlodipine is possible. Veterinarians should be aware of this possibility so they can implement a trial discontinuation of amlodipine if edema occurs.—Anamara Estrada, DVM, DACVIM (Cardiology)

**Source**


**Caring for a Paralyzed Dog**

Spinal cord injury (SCI) after disc herniation is a common cause of spinal dysfunction in dogs. Dogs that do not recover pain perception after 3 weeks have a poor prognosis for full recovery, and many are euthanized because of owner concerns regarding nursing care. Owners of 26 dogs with clinically complete SCI (ie, lack of pain sensation, lack of voluntary movement, urinary and fecal incontinence for >9 months) quantified the time spent caring for their pet and how it affected family life. Time spent on total care per week varied (24–44 hours). Time spent per week on mobility management was 13–30 hours, on management of incontinence 0–16 hours. Median time requirement for managing bladder, bowel, and pressure sore problems was 30 min/day. Many owners (73%) reported not considering euthanizing the pet; 20/26 reported the effort was worthwhile, and 16/20 said it had enhanced their bond with their dog.

Three owners reported adverse effects on their quality of life and/or family life.

**Commentary**

Owners need to be aware of the time commitment involved in the long-term care of a paralyzed dog. Urinary and fecal incontinence and pressure sores are common in plegic animals with loss of pain perception. Even if most owners would not euthanize their pet if given the benefit of hindsight, a few owners reported that their quality of life, social life, and family interactions had declined while caring for their paralyzed dog.—Helena Rylander, DVM, DACVIM (Neurology)

**Source**


**ADVERSE REACTIONS**

Dogs and cats known to have a systemic allergy to pork or pork products should not be treated with vetsulin®. vetsulin® is contraindicated during periods of hypoglycemia.

**CAUTIONS**

Use in anesthetized animals—When using severe ketoadosis, anorexia, lethargy, and/or vomiting should be standardized with short-acting insulin and appropriate supportive therapy until their condition is stabilized. As with all insulin products, careful patient monitoring for hypoglycemia and hyperglycemia is essential to attain and maintain adequate glycemic control and prevent associated complications. Overdose can result in profound hypoglycemia and death. Progestogens, certain endocrinopathies, and glucocorticoids can have an antagonistic effect on insulin activity. Insulin resistance should be treated with appropriate analgesics. Overdose or severe hypoglycemia should be avoided.

**DOSAGE**

In the US clinical effectiveness studies, dogs and cats received various medications while being treated with vetsulin® including antimicrobial, antiinflammatories, antibacterials, analgesics, antihypertensives, diuretics, antiemetics, vitamins, injectable medications, oral medications, antihypertensives, and oral supplements, and topicals preparations containing antimicrobials and antifungamides. No medication interactions were reported. No medication interactions were observed in dogs receiving corticosteroids.

**CONTRAINDICATIONS**

The safety and effectiveness of vetsulin® in breeding, pregnant, and lactating dogs and cats has not been evaluated. Use in pregnant and lactating pets: The safety and effectiveness of vetsulin® has not been evaluated in puppies and kittens. Adverse reactions have not been evaluated.

**CONTRAINDICATIONS**

Dogs and cats treated with severe ketoadosis, anorexia, lethargy, and/or vomiting should be standardized with short-acting insulin and appropriate supportive therapy until their condition is stabilized. As with all insulin products, careful patient monitoring for hypoglycemia and hyperglycemia is essential to attain and maintain adequate glycemic control and prevent associated complications. Overdose can result in profound hypoglycemia and death. Progestogens, certain endocrinopathies, and glucocorticoids can have an antagonistic effect on insulin activity. Insulin resistance should be treated with appropriate analgesics. Overdose or severe hypoglycemia should be avoided.

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**ADVERSE REACTIONS**

Dogs in the field effectiveness and safety study, 66 dogs were treated with vetsulin®. Forty-two dogs were excluded in the assessment of safety. Hypoglycemia (defined as blood glucose <50 mg/dL) with or without associated clinical signs occurred in 35.5% (22/62) of the dogs. Causes of hypoglycemia were diabetes mellitus, fasting, coffee ingestion, and exercise. In diabetic dogs, hypoglycemia was reported during the postprandial period, 12 h-24 h after feeding. In the dogs, hypoglycemia was reported during exercise. In the rest of the dogs, hypoglycemia resolved with appropriate therapy and adjustments in insulin dosage. Seventeen owners recorded the following observations about the injection site on the monitoring forms: swollen, painful, sore, and a bluish skin. The following clinical observations occurred in the field study following treatment with vetsulin® and may be directly attributed to the drug or may be secondary to the diabetic state or other underlying conditions in the dog: hematura, vomiting, diarrhea, paroxysmal hypoglycemic attacks, seizures, death, pruritus, and dose adjustment.

**PRECAUTIONS**

Insulin treatment beginning with severe ketoadosis, anorexia, lethargy, and/or vomiting should be standardized with short-acting insulin and appropriate supportive therapy until their condition is stabilized. As with all insulin products, careful patient monitoring for hypoglycemia and hyperglycemia is essential to attain and maintain adequate glycemic control and prevent associated complications. Overdose can result in profound hypoglycemia and death. Progestogens, certain endocrinopathies, and glucocorticoids can have an antagonistic effect on insulin activity. Insulin resistance should be treated with appropriate analgesics. Overdose or severe hypoglycemia should be avoided.

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