Pancreatic Disorders

EXOCRINE PANCREATIC INSUFFICIENCY IN DOGS

Exocrine pancreatic insufficiency (EPI) is a syndrome in dogs caused by inadequate production of digestive enzymes, bicarbonate, and other substances needed for normal digestion of food. When digestive enzymes are insufficient or lacking, the result is maldigestion and malnutrition.

Common clinical signs of EPI in dogs include weight loss, despite a normal or increased appetite; small bowel diarrhea; steatorrhea; increased fecal volume and, in some cases, defecation frequency; and increased flatulence. Poor body condition, borborygmus, coprophagia and/or pica, and nervousness or aggressiveness also have been reported.[1,2]

The goals of nutritional intervention in dogs with exocrine pancreatic insufficiency are to provide enough energy and highly digestible nutrients to support ideal body condition, avoid nutrient deficiencies, and minimize clinical signs.

Key Messages

- Adding exogenous pancreatic enzymes to food at every meal is the main therapy for long-term management of dogs with EPI.
  - Digestion capacity, particularly for fat digestion, does not fully return to normal despite adequate enzyme supplementation.[5]
- Dietary modification, such as lower fat or higher digestibility, may help reduce the severity of some clinical signs.[6] However, diet choice depends on the individual dog since responses to different dietary strategies vary.[6-9] In an individual patient, it may be necessary to try several diets before the most appropriate one is identified.
  - An individual dog's response to diet change may not correlate with dietary fat concentration.[8]

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DID YOU KNOW?

The exocrine pancreas has a large reserve capacity for digestive enzyme secretion. Signs of gastrointestinal problems associated with EPI (e.g., steatorrhea, chronic diarrhea) do not occur until most pancreatic enzyme secretions are lost.[3,4]

Key Messages (continued)

- A highly digestible, low-fiber commercial therapeutic gastrointestinal diet may be appropriate, particularly during initial treatment, until a dog's nutritional status has improved and mucosal damage, if present, has been repaired.[2,10,11]
- Some dogs can be well managed long term on a commercial well-pet food when supplemented with pancreatic enzymes.[12,13]
- Cobalamin (vitamin B12) deficiency has been found in 75% to 82% of dogs diagnosed with EPI.[7,10] If not corrected, hypocobalaminemia may result in treatment failure or complications.[1] Vitamin B12 should be supplemented parenterally if testing reveals a deficiency. Oral supplementation may be adequate following stabilization.

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