Gastrointestinal Stasis and Gastrointestinal Dilation in Chinchillas

Basics

OVERVIEW

- Gastrointestinal (GI) stasis is slowing of normal emptying of the stomach and passage of food through the intestinal tract.
- Gastrointestinal dilation—accumulation of ingesta (food, fluid, and fur) and gas in the stomach, intestines, and cecum
- Proper digestion of food and gastrointestinal tract motility are dependent on the ingestion of large amounts of roughage and long-stemmed hay.
- Diets that contain inadequate amounts of long-stemmed, coarse fiber predispose the patient to gastrointestinal stasis. However, unlike rabbits and guinea pigs, gastrointestinal motility in chinchillas is not directly affected by a reduction in dietary fiber; instead, decreased fiber intake changes the population of bacteria in the large bowel in a way that threatens favorable bacteria and promotes the growth of potentially dangerous bacteria (e.g., E. coli and Clostridium) and toxin production.
- Diets that are low in coarse fiber typically contain high simple carbohydrate concentrations, which promote the growth of potentially dangerous bacteria (bacterial dysbiosis), and result in diarrhea, GI stasis, or gas accumulation.
- As nausea and gastrointestinal discomfort lead to a lack of appetite, fiber and water intake are further reduced, and the process becomes self-perpetuating.
- Anything that causes the chinchilla not to eat, such as disease, pain, stress, or starvation may cause GI stasis/dilation.

SIGNALMENT

- More commonly seen in middle-aged to older chinchillas on poor diets, but can occur at any age
- Seen in both genders

SIGNS

- Affected chinchillas have a decreased appetite. They often initially stop eating pellets but continue to eat treats, and then stop eating completely.
Fecal pellets become scant and small in size; eventually, no fecal pellets are produced in chinchillas with complete GI stasis or bloat.

Initially, they are bright, alert, and otherwise act normally; then show signs of pain, such as teeth grinding, a hunched posture, and reluctance to move.

Abdominal distension—Animals affected by bloat are often swollen, lie on their sides, hesitate to stir, and may have difficulty breathing.

Some have diarrhea

The veterinarian may detect excessive gas in the intestinal tract or hear decreased stomach sounds on listening to the abdomen with a stethoscope.

CAUSES

- Motility disorders occur as a result of poor diet, underlying disease, pain, or stress.
- Often GI stasis/bloat is caused by feeding diets with insufficient grasses and long-stemmed hay and/or excessive amounts of simple carbohydrates. Examples of improper diets include feeding primarily commercial pellets, especially those containing seeds, oats, or other high-carbohydrate treats; feeding cereal products (bread, crackers, breakfast cereals); and feeding excessive treats (yogurt drops, raisins, dried fruits) or large amounts of fruits containing simple carbohydrates.
- Conditions that result in a lack of appetite often cause GI stasis/dilation. Common causes include dental disease (e.g., malocclusion, molar elongation, tooth root abscesses), metabolic disease (e.g., kidney or liver disease), pain (e.g., dental pain, trauma, postoperative, bladder stones), anxiety (e.g., fear, fighting, lack of hide box), cancer, infection, parasites, and environmental changes (e.g., boarding, new pets, unfamiliar noises)
- Other factors that can contribute to gastrointestinal stasis and dilation include toxin ingestion, foreign material ingestion (e.g., scoopable cat litter, fur, carpet fiber), obesity, inactivity, confinement, and certain drugs.
- Inappropriate antibiotics can damage intestinal bacteria and promote the growth of potentially dangerous toxin-producing bacteria.

RISK FACTORS

- Diets containing insufficient amounts of hay
- Any condition that causes a lack of appetite

TREATMENT

APPROPRIATE HEALTH CARE

- Remove any underlying cause, if possible.
- Outpatient care may be appropriate for chinchillas with mild decreases in appetite and fecal production, but inpatient hospitalization is recommended for the majority of patients.
- Chinchillas that refuse all food and are not producing any feces should be treated as soon as possible; those that have been showing symptoms for over 24 hours should be seen on an emergency basis.

ACTIVITY

If the chinchilla is not debilitated, encourage exercise for at least 10–15 minutes every 6–8 hours as activity promotes gastric motility; provide supervised freedom from the cage or access to a safe grazing area.

DIET

- Getting the chinchilla to eat is the most important part of treatment.
- It is absolutely imperative that the chinchilla eat. Offer parsley, cilantro, dandelion greens, and good-quality grass hay. Also, try offering the chinchilla's usual diet.
- If food is refused, syringe-feed a gruel such as Critical Care for Herbivores (Oxbow Pet Products) or Emeraid Herbivore (Lafeber Company, Cornell, IL); feed as much as the chinchilla will readily accept. Alternatively, pellets can be ground and mixed with fresh greens, vegetable baby foods, water, or juice to form a gruel.
- Do not feed starchy, sweet, or fatty foods.
- Encourage drinking by offering fresh water and wetting leafy vegetables.
- The diet should be permanently modified to include sufficient amounts of roughage and long-stemmed grass hay; foods high in simple carbohydrates should be prohibited or limited to the occasional treat.

SURGICAL CONSIDERATIONS

Surgery is usually not a part of treatment and can make GI stasis worse.
MEDICATIONS
Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered all-inclusive.

Fluid Therapy
Providing fluids in the form of oral, subcutaneous (under the skin injections), or IV route is one of the most important aspects of treatment. Most chinchillas are treated with subcutaneous fluids, which can be administered by your veterinarian or can be a part of home treatment. In more severe cases, IV fluids are necessary.

Pain Medication
Pain medications such as meloxicam (Metacam or Mobic), buprenorphine, or carprofen are essential to treatment of GI hypomotility. Intestinal pain, usually from gas distention, impairs mobility and decreases appetite, and may severely inhibit recovery.

Gastric Prokinetic Agents (drugs that improve the propulsion of contents through the stomach and into the intestines)
- Metoclopramide (Reglan) improves stomach motility and coordinates stomach and upper small intestinal motility.
- Cisapride works directly on gastrointestinal smooth muscle, stimulating motility; improves gastric emptying; and promotes increased motility of both the small and large intestine.

Antibiotics
Chinchillas with diarrhea caused by severe overgrowth of potentially dangerous bacteria may require antibiotics.

Treatment of Intestinal Gas
Simethicone may be helpful in alleviating painful intestinal gas.

FOLLOW-UP

PATIENT MONITORING
- Response to therapy varies, according to the underlying cause of the stomach (gastric) motility disorder.
- Monitor appetite and production of fecal pellets. Chinchillas that are successfully treated will regain a normal appetite and begin to produce normal volumes of feces.

EXPECTED COURSE AND PROGNOSIS
- The length of treatment depends on the ability to resolve the underlying disorder or on response to therapy.
- Mild cases, if caught early, usually respond to outpatient medical management and diet correction; the prognosis is generally excellent to good.
- Moderately severe cases generally respond to several days of hospitalization and intensive supportive care. These cases carry a good to fair prognosis; the patient usually improves and is discharged for additional care at home.
- In advanced cases—which those that went unnoticed for several days prior to presentation—the prognosis is usually guarded to poor.

KEY POINTS
- Strict feeding of diets containing adequate amounts of indigestible coarse fiber (long-stemmed hay) and low simple carbohydrate content, along with access to fresh water, will often prevent episodes. Allow chinchillas to have sufficient daily exercise, and prevent obesity to help prevent future episodes.
- To help prevent future episodes, minimize changes in the daily routine that might cause stress, avoid sudden changes the diet, and be certain that clean water is available at all times and is presented in a familiar manner (sipper vs. bowl).
- Seek veterinary attention immediately whenever a decrease in appetite is noticed.