Gastrointestinal Obstruction in Ferrets
(Blockage of the Gastrointestinal Tract)

Basics

OVERVIEW

- *Gastro-* refers to the stomach; *intestinal* refers to the intestines.
- A gastrointestinal (GI) obstruction is a partial or complete blockage or obstruction of the flow of solid or liquid nutrients taken in. Blockage can occur in the flow of food from the stomach, or anywhere along the intestinal tract.
- A GI foreign body is any nonfood object that is swallowed and is located within the GI tract.
- Ferrets are extremely fond of chewing, especially on plastic, rubber toys, cloth, or vegetables. Therefore, GI foreign bodies are a common occurrence, especially in young ferrets less than 2 years of age. Hair balls acquired through grooming may also form GI foreign bodies in older ferrets.
- Some small or easily deformed foreign bodies will pass through the gastrointestinal tract with food and will subsequently be eliminated from the body in the feces. Larger, nondeformable material may cause a partial or complete obstruction, most commonly of the stomach or intestines.
- Ferrets differ from cats and dogs with intestinal obstructions. Most cats and dogs have complete intestinal obstruction and present for vomiting, not eating, and/or diarrhea. Foreign bodies in ferrets usually cause partial obstructions, so that some food and liquid can pass. As a result, vomiting is unusual (but can happen). More often, ferrets with intestinal obstruction will have vague symptoms such as decreased appetite, weakness, and weight loss.
- Other, less common causes of obstruction include tumors or thickening of the walls of the stomach or intestines.

SIGNALMENT

- Younger ferrets (<2 years) are more likely to ingest toys or other objects.
- Hair balls, thickened intestines, and cancer/tumors are more commonly seen in older ferrets.

SIGNS

- Pronounced weakness and reluctance to move are commonly seen in acute obstructions.
- Decreased appetite, refusing food, weight loss, chronic wasting, and lethargy are the most common symptoms, especially with foreign bodies that are causing long-term obstruction.
- Lack of appetite may wax and wane.
• Signs of nausea such as drooling, teeth grinding, and pawing at the mouth are also common.
• Diarrhea is common.
• Vomiting may occur but is seen less frequently than symptoms listed above.
• Vomit may contain blood, and/or dark, tarry stools may be present if the foreign body has caused a stomach ulcer.

**CAUSES**

**Gastric Outflow Obstruction (blockage at the area where the stomach empties into the upper small intestine)**
- Foreign bodies—Young ferrets are particularly fond of chewing or swallowing rubber toys and foam rubber.
- Tumor or cancer
- Pyloric stenosis (narrowing of the area where the stomach and upper small intestine join together)

**Small Intestinal Obstruction**
- Foreign bodies—Toys or hair balls are most common
- Tumor or cancer
- Inflammation of the intestines, characterized by the presence of nodules (known as granulomatous enteritis)
- Abnormal narrowing of the small intestine (known as an intestinal stricture)
- Folding of one segment of the intestine into another segment (intussusception) is rare in ferrets.

**RISK FACTORS**
- Unsupervised access to toys or other objects to chew
- Underlying gastrointestinal tract disease

**TREATMENT**

**HEALTH CARE**
- Inpatient treatment is necessary for diagnosis, initial supportive medical care, and relief of the blockage or obstruction (with surgery).
- Delay in diagnosis may result in death of intestinal tissue or leakage of intestinal contents into the abdomen, resulting in a much poorer prognosis.
- Intravenous fluids are necessary to treat dehydration, to provide circulatory support, and to correct acid-base and electrolyte abnormalities.

**ACTIVITY**
- Restricted until the obstruction is removed and surgical wounds have healed

**DIET**
- Nothing by mouth until relief of blockage or obstruction
- Following surgery, many ferrets will refuse their normal diets. If the normal diet is refused, offer a high-calorie diet such as Eukanuba Maximum Calorie diet (Iams Co., Dayton, OH), Feline a/d (Hills Products, Topeka, KS), human chicken-based baby foods, or Clinicare Feline liquid diet (Abbott Laboratories, North Chicago, IL).
- Warming the food to body temperature or offering via syringe may increase acceptance.

**SURGICAL CONSIDERATIONS**
- Gastric and intestinal foreign bodies are removed by surgery. This allows for assessment of the intestinal tract, liver, and spleen, along with biopsy specimen collection when indicated.
- In many cases exploratory surgery is necessary to diagnose foreign bodies. Imaging studies such as X-rays and abdominal ultrasound will sometimes reveal a foreign object or other causes of blockage. However, in many cases the object is not visible by these methods, and exploratory surgery is necessary for both diagnosis and treatment.

**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.
- Antibiotics are commonly given, especially if underlying helicobacter infection is present, or blood is seen in vomit or diarrhea. Common examples are ampicillin or amoxicillin, metronidazole, clarithromycin, or a fluoroquinolone (such as enrofloxacin).
• Antacids (such as ranitidine, famotidine, omeprazole or cimetidine) and/or stomach-lining protectants (such as sucralfate) are usually given before and after surgery.
• Pain medications are generally given after surgery.

FOLLOW-UP

PATIENT MONITORING
• Monitor appetite and stool. Some ferrets develop stomach ulcers during and following treatment for intestinal obstruction. Seek veterinary care if diarrhea, vomiting, or a lack of appetite return.
• Monitor ferrets while playing with toys to prevent ingestion.

PREVENTION/AVOIDANCE
• Some ferrets with tendencies to eat foreign bodies may do so repeatedly; therefore, closely supervise chewing activities.
• Avoid giving rubber toys to young ferrets.
• To prevent intestinal hair balls, administer a cat laxative regularly, especially during periods of heavy shedding.

POSSIBLE COMPLICATIONS
• Death of intestinal tissue (intestinal necrosis) or leakage of intestinal contents if surgery is not performed promptly
• Other than the small possibility of stricture formation at the site of removal, complications following removal of gastrointestinal foreign bodies are rare.
• Spread of tumor or inoperable cancers

EXPECTED COURSE AND PROGNOSIS
• Uncomplicated cases—prognosis good to excellent
• Severely ill, weak patients with long-standing foreign bodies or obstruction due to tumor/cancer—prognosis is guarded to poor.

KEY POINTS
• Young ferrets are extremely fond of chewing, especially rubber or foam objects; all reasonable efforts to prevent access to foreign bodies should be made.
• Sudden (acute) intestinal blockages or obstructions are emergencies, and surgery should be performed as soon as possible after immediate supportive medical care.
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