RABBITS

Vertebral fracture

Presentation and Signs
Animals will present with paraplegia or hindlimb paralysis. A history of trauma or poor handling techniques is common.

Diagnostics
History and clinical signs are often telling. Radiographs may provide further information as to the extent of the injury—whether subluxation or complete fracture.

Treatment
Euthanasia is often warranted, especially if damage is severe. For minor cases of subluxation, paralysis or paresis may be caused by spinal edema. In these cases, cage rest and steroids may result in clinical improvement. Supportive care during this time must include manual bladder expression and monitoring of the health of the rear feet for prevention of epidermal compromise and infection.

Trichobezoar

Presentation and Signs
Inappetence can be a presenting sign. Depending on position within the stomach, the trichobezoar can cause gastrointestinal obstruction, becoming a surgical emergency. Animals can also be quite painful and may be dehydrated. Trichobezoar is often a secondary sequel to gastric stasis.

Diagnostics
Radiographs are often helpful, including an upper GI barium series to determine whether pyloric obstruction is present. A firm mass may be palpable in the cranial abdomen.
Treatment
If the animal has GI obstruction, it must be addressed with gastrotomy. Without obstruction, primary goals should be pain management and fluid support. Once analgesics are administered an dehydration addressed, re-initiate gastric motility via a pro-kinetic and encouragement of exercise for the animal.

Malocclusion

Presentation and Signs
Animals in early stages may present with reduced appetite and weight loss. Once overgrowth of the incisors progresses, ptyalism may become evident.

Diagnostics
Clinical signs and oral exam are enough to determine this condition.

Treatment
Trim the teeth every 2-3 weeks, or as appropriate depending on the degree of malocclusion. Avoid fracturing the teeth if at all possible. Use of a dental burr is preferred for this technique. If a breeding colony, discuss removal of the animal from the breeding line as the condition is heritable.

Buphthalmia

Presentation and Signs
Animals present at varying ages with unilateral or bilateral buphthalmia.

Diagnostics
Clinical signs are adequate. Because the problem typically initiates when animals are young and the sclera is still elastic, animals will often have relatively normal intraocular pressures.

Treatment
Due to normal intraocular pressures, the condition is not thought to be painful. Ensure animals can blink completely and address any corneal lesions. If a breeding colony, discuss removal of the animal from the breeding line as the condition is heritable.

Psoroptes cuniculi

Presentation and Signs
Pruritus of the ear is often a presenting sign. This is accompanied by crusting lesions on the inner surface of the pinna. Animals will often scratch and/or headshake. Severe cases may lead to self-mutilation.

**Diagnostics**

Mites can be visualized within the ear with an otoscope or with the naked eye.

**Treatment**

1-2 doses of 400 ug/kg ivermectin IM or SC or a single dose of topical selamectin have been shown effective. Treat other animals within the household/colony simultaneously to prevent re-infestation.

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**Encephalitozoon cuniculi**

**Presentation and Signs**

Often latent, but young animals may demonstrate neurological signs due to encephalomyelitis, including paralysis, head tilt, and convulsions. If infected *in utero* uveitis and lens rupture is possible. Lesions (granulomas) can be found in the brain, liver, kidney and lung at various times during the course of infection.

**Diagnostics**

Histologic analysis of affected tissues will demonstrate characteristic granulomas. The organism will stain with Gram, Giemsa or Goodpasture techniques.

**Treatment**

Some success has been demonstrated with fenbendazole treatment.

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**Pasteurella multocida**

**Presentation and Signs**

A very common bacterial disease in rabbits, *Pasteurella multocida* infection can cause a wide variety of clinical signs; the most common are associated with the respiratory tract, including sneezing and nasal discharge.

**Diagnostics**

Swabs of the oropharyngeal cavity can be used for PCR analysis. Culture and sensitivity of the nares can be performed to guide treatment.

**Treatment**

Antibiotic therapy based on culture and sensitivity results

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**Uterine Adenocarcinoma**
**Presentation and Signs**
Animals (if breeders) may present for decreased reproductive success. Otherwise, hematuria or an abdominal mass may be the presenting complaints.

**Diagnostics**
Radiographs, ultrasound or exploratory laparotomy will reveal one to multiple uterine masses. Metastasis may occur to the lungs, liver or other organs.

**Treatment**
Tumor removal with ovariohysterectomy may prove successful, but the tumor will often have metastasized prior to diagnosis.

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**GUINEA PIGS**

**Malocclusion**

**Presentation and Signs**
Common due to heritable conditions (maxillary prognathism), broken teeth or other misalignment of tooth surfaces. Guinea pigs will present with decreased appetite, excessive drooling and possibly oral lacerations.

**Diagnostics**
Clinical signs and oral exam are enough for diagnosis.

**Treatment**
Supportive care and correction of tooth overgrowth (including removal of points, tongue entrapment, etc.). Regular trimming is needed to prevent recurrence.

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**Urinary calculi**

**Presentation and Signs**
Affected animals may present with hematuria, straining, pain, weight loss, and/or vocalization

**Diagnostics**
Ultrasonography or radiology can provide a diagnosis. If stones are large enough they may be palpable.

**Treatment**
Removal of stones via cystotomy with coincidental fluid and antibiotic support. Dietary adjustment to lower calcium levels may be required to prevent recurrence.
Dystocia

**Presentation and Signs**
Guinea pigs will often deliver their entire litter within 30 minutes with one pup approximately every five minutes. Animals may strain or have bloody to greenish-brown discharge.

**Diagnostics**
If guinea pigs are not bred by approximately 6 months of age, the pelvic symphysis will fuse, resulting in an inability for the birth canal to expand.

**Treatment**
Treat the dam with calcium and glucose. Physical removal of the pups either digitally (if possible) or via Caesarian section. Pups will often not survive a dystocia event.

Hypovitaminosis C (Scurvy)

**Presentation and Signs**
Easy bruising, signs of pain, vocalizations when handled and swollen joints are common signs of scurvy in guinea pigs.

**Diagnostics**
Serum vitamin C levels <0.55 mg/dl is diagnostic (normal 2.01 mg/dl). Clinical signs, a recent history of inappetance or questionable dietary practices may be enough for a presumptive diagnosis.

**Treatment**
Daily vitamin C supplementation for animals with scurvy results in improvement in one to two weeks.

Ulcerative Pododermatitis (Bumblefoot)

**Presentation and Signs**
Guinea pigs will typically present with lesions on their feet. The entire foot may be swollen, or there may be firm ulcerated wounds. Infection with *S. aureus* is often isolated from these wounds. Rapid progression to osteomyelitis is possible.

**Diagnostics**
Presentation is enough for a presumptive diagnosis.

**Treatment**
Husbandry changes are the first line of treatment. Soft, deep bedding, appropriate cleanliness, and dryness of the environment and assessment of the smoothness of cage floor should be provided. Severe cases may need systemic antibiotic treatment, and/or localized treatment of the wound, up to and including surgical debridement.
Lumps

**Presentation and Signs**
Enlargement of cervical lymph nodes can be detected visually or upon palpation. Animals may also have discharge from the eyes or nose, head tilt and/or respiratory signs, among other presentations.

**Diagnostics**
Presentation is often enough for a presumptive diagnosis. Culture of *Streptococcus equi* subspecies *zooepidemicus* from abscesses is definitive.

**Treatment**
Abscesses may rupture and drain. Surgical removal of the abscess and its capsule may be performed. Treatment with appropriate antibiotics—based on culture and sensitivity and safe for guinea pigs, can be attempted.