MANAGEMENT OF PHIMOSIS AND BALANOPOSTHITIS IN A PET CHINCHILLA (*CHINCHILLA LANIGERA*)

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Abstract

A 9-year-old male castrated pet chinchilla (*Chinchilla lanigera*) with a 5-day history of lethargy, inappetence, and weight loss was diagnosed with extensive adhesions between the glans penis and the prepuce, resulting in phimosis. Secondary accumulation of smegma and bacterial balanoposthitis was present. Treatment of the phimosis included repeated breakdown of the adhesions between the prepuce and glans penis, regular extrusion of the glans penis, and topical application of a steroid ointment. The adhesions between the prepuce and glans penis reoccurred despite repeated treatments. Overall, 31 months after the initial diagnosis, phimosis persists, however, concurrent balanoposthitis is not evident nor are any overt clinical disease signs. This report is the first description of phimosis in a rodent species.

Key words: chinchilla; phimosis; treatment; balanoposthitis; small exotic mammal

A 9-year-old male neutered chinchilla (*Chinchilla laniger a*) presented with a 5-day history of lethargy and inappetence. The chinchilla was housed alone and its diet consisted of pellets and grass hay, with occasional oats and flaxseed treats. The owner reported the animal had no previous medical history.

Upon examination, the patient was quiet but alert. Heart rate, respiration rate, and rectal temperature were all within normal limits. A limited oral examination was unremarkable, and no mandibular abnormalities were palpable. Purulent discharge was noted from the prepuce, and it was not possible to extrude the glans penis from the prepuce owing to the presence of adhesions between the distal part of the glans penis and the prepuce (Fig. 1A). These findings were consistent with phimosis and purulent balanoposthitis.

The owner declined the recommended bacterial culture and sensitivity of the purulent preputial discharge. Cytology of the purulent discharge was performed using Diff-Quick stain and moderate numbers of rod-shaped bacteria were observed. The prepuce and surrounding area was thoroughly cleaned with dilute (0.125%) chlorhexidine solution (Nolvasan; Ft. Dodge Animal Health, Ft. Dodge, IA USA) and treatment was initiated with enrofloxacin (10 mg/kg subcutaneously, then orally every 12 hours for 7 days, Baytril; Bayer Health Care LLC, Shawnee Mission, KS USA). In a follow-up appointment 8 days later, the chinchilla's appetite and activity level were considered normal. The preputial discharge had resolved, but the preputial adhesions causing the phimosis remained unchanged (Fig. 1B). Surgical correction of the phimosis was recommended, but declined by the owner.

Three and a half months after initial diagnosis, the chinchilla presented again with the complaint

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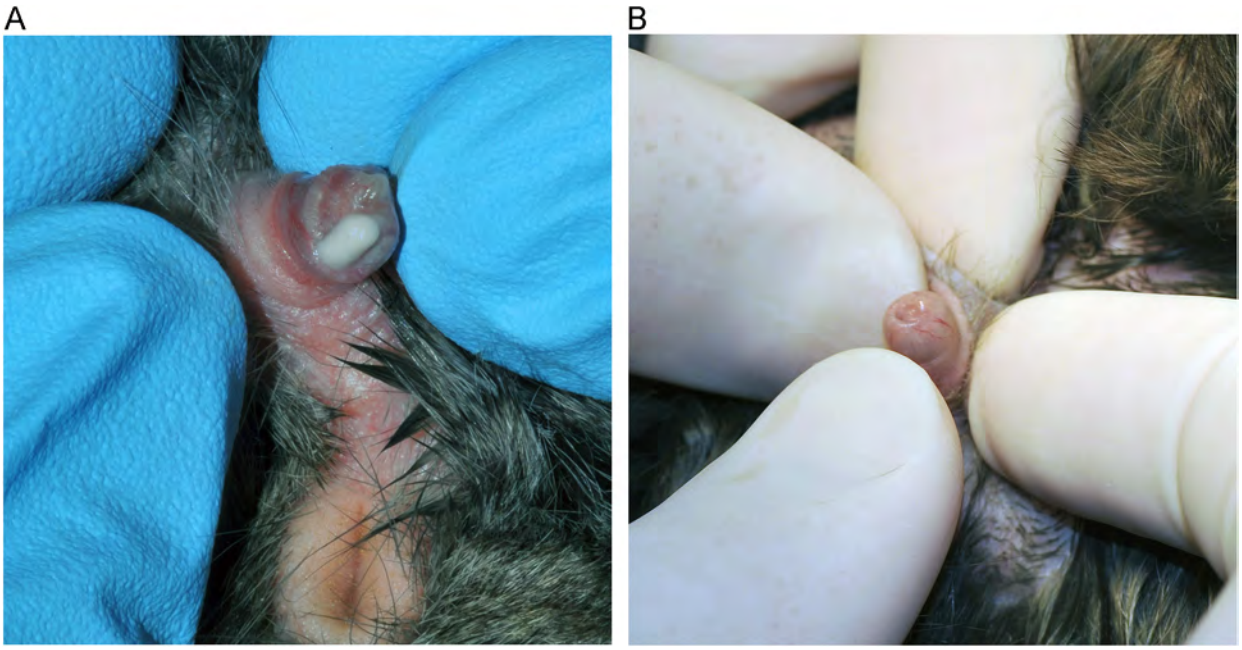

FIGURE 1. (A) Phimosis and purulent preputial discharge in a 9-year-old chinchilla (initial presentation). Note the formation of adhesions between the tip of the glans penis and the prepuce. (B) Persistent phimosis in a 9-year-old chinchilla. Note the absence of purulent discharge from the prepuce following treatment with systemic antibiotics.

of weight loss and inappetence. Upon examination, purulent discharge was again observed at the preputial opening and within the prepuce. Cytological examination of the discharge confirmed the recurrent purulent bacterial balanoposthitis and the presence of mild to moderate numbers of rod-shaped bacteria. A sample of the preputial discharge was submitted for an aerobic bacterial culture and sensitivity. Moderate growth of nonhemolytic *Corynebacterium* or *Actinomyces* sp. was isolated with only intermediate sensitivity to enrofloxacin, but the isolate was sensitive to trimethoprim-sulphamethoxazole (TMS), which was therefore prescribed (30 mg/kg orally, twice a day for 10 days). Surgical correction of the phimosis was again recommended to the owner following the culture results, but was declined.

The chinchilla was re-evaluated approximately 1 month later (4.5 months after initial presentation) and the owner was concerned the animal was losing weight. On examination, the animal continued to have purulent discharge from the prepuce. The owner had continued syringe feeding the patient since the previous visit because of anorexia. A urine dipstick and a fecal floatation were performed and the results were normal and negative for endoparasites, respectively. The patient was premedicated with dexmedetomidine (0.016 mg/kg intramuscularly) and ketamine (3.2 mg/kg intramuscularly). The animal was placed and maintained under anesthesia with sevofluorane (2% to 3%) in 100% oxygen using a face mask. The preputial area was clipped, aseptically prepared, and draped in a sterile manner. The prepuce was pulled caudally and the glans penis extruded approximately 1 mm before adhesions were observed between the glans penis and prepuce. Iris scissors were used to gently break down the adhesions, until the glans penis was fully extruded from the prepuce (Fig. 2A). The glans penis and prepuce were cleaned with chlorhexidine solution (0.125%) and an ointment containing gentamicin, betamethasone, and clotrimazole (Otomax, Intervet/Merck Animal Health, Madison, NJ USA) was applied to the area. Lactated Ringer's solution (20 mL) was administered subcutaneously at the end of the procedure. The patient was discharged with instructions to continue the TMS for a total of 14 days. Meloxicam (0.3 mg/kg orally, every 12 hours for 10 days, Metacam; Boehringer Ingelheim Vetmedica Inc., St. Joseph, MO USA) was prescribed to address inflammation at the surgical site and associated discomfort. The owner was also instructed to extrude the glans penis and apply the