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Clinical Management of Paraphimosis in a Mongrel Dog: A Case Report

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

The present case deals with clinical management of paraphimosis in 1 year old mongrel dog Presented to Teaching veterinary Clinical Complex. After thorough clinical examination the protruded penis was cleaned and antiseptic dressing was done. Then edema was reduced by

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applying Hypertonic solution D25 (25 percent dextrose solution) and ice packs. Once the swelling had sufficiently decreased, the area was cleaned again Lignocaine gel was applied topically for pain management and lubrication, allowing for a gentle repositioning of the penis into the preputial sheath Prognosis was good. No further complications were observed.

Keywords: Paraphimosis; hypertonic solution; paraphimosis; urethra.

1. INTRODUCTION

"Paraphimosis, the inability to completely reduce the penis into the preputial cavity, most commonly occurs in a dog after manual semen collection, less commonly after coitus" (Davison 2022). The skin at the preputial orifice becomes inverted, trapping the extruded penis and impairing venous drainage. Paraphimosis accounts for approximately seven percent of penile problems in dogs, and while not common, it is uncomfortable and can cause distress to dogs and can have more serious consequences if left untreated or if it becomes a recurring issue. There are multiple etiologies associated with failure of the penis from being withdrawn into the prepuce (Rao and Bharathi, 2004) and may be associated with trauma during copulation, penile haematoma, Neoplasia (Roberts, 1986), infection (Papazoglou, 2001), penile fracture (Rao and Bharathi, 2004), ineffective preputial muscle (Chaffee and Knecht, 1975) , masturbation, pseudohermaphrodism, neurologic deficits, foreign bodies or congenital paraphimosis (Fossum, 2007) or paralysis of the retractor penis muscle (Kustriz, 2001). "Prolonged paraphimosis can result in necrosis of the glans penis and obstruction of urethra. The paraphimosis may occur secondary to a hypoplastic prepuce, trauma, a relatively small or stenotic preputial orifice, constriction of preputial hair around the penis, ineffective preputial musculature that cannot effectively retract the penis into the prepuce, hypospadias, neurologic deficits in dogs with posterior paresis, balanoposthitis, large penile tumor, priapism, or may occurs as an idiopathic event" (Kutzler, 2012).

2. CASE PRESENTATION

A stray dog of 1year age was reported to the veterinary clinical complex, college of veterinary science, Rajendranagar, Hyderabad, with the problem of paraphimosis. According to the history dog is having paraphimosis since 24 hours. Clinical examination revealed a congested, edematous, swollen penis protruding out of prepucial sheath. Edematous prepucial band was constricting the penis and preventing its retraction into the sheath. The dog was assessed for pain by gentle palpation of the exposed penis (Cox and Harrison 2023).

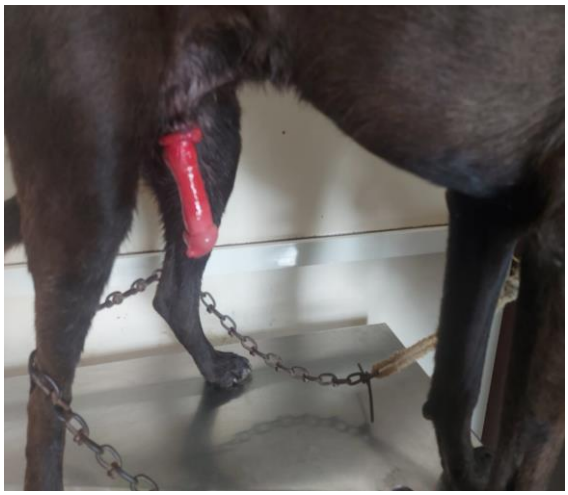

Fig. 1. Protruded penile shaft through prepucial orifice

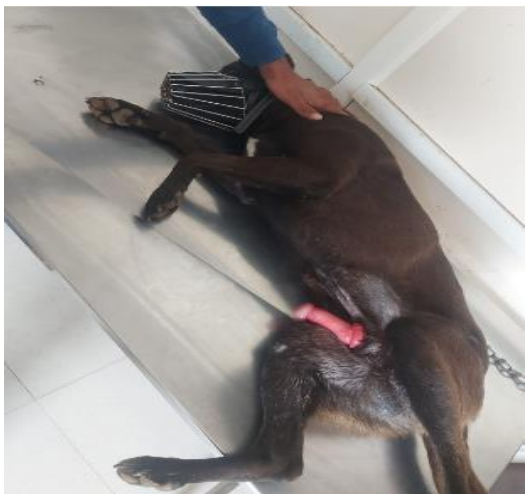

Fig. 2. Animal is placed in lateral recumbency

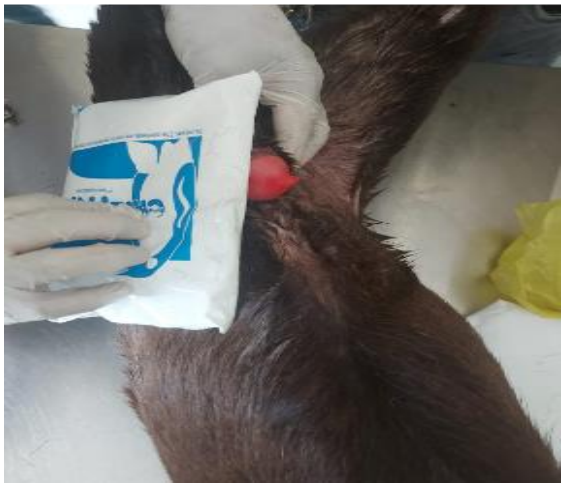

Fig. 3. Application of ice pack

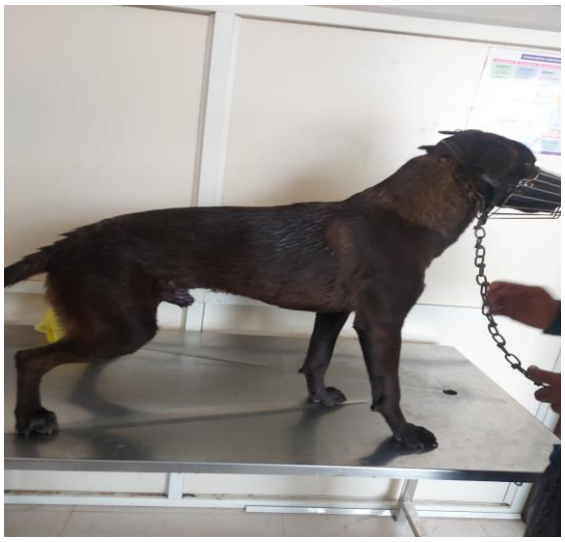

Fig. 4. After treatment

3. TREATMENT AND DISCUSSION

Animal was placed on the table in lateral recumbency. The protruded penis out of prepuce was cleaned with potassium permanganate solution (1:1000) for removal of debris. The hair around the area was clipped. Lignocaine jelly was applied on the exposed penile region and an attempt was made to replace it back into the sheath. The penis did not retracted easily, so further application of concentrated sugar solution[D25] and ice packs were applied on the protruded penis to reduce it's size, after which another attempt at repositioning was made (Kumar et al., 2012; Vigyan et al., 2024). After 30 minutes of ice pack application and size reduction with hypertonic solution D25, penis was successfully repositioned into the prepucial sheath. The dog was treated with inj melonex 1ml I/M, inj avil 1ml I/M and inj intacef 250mg I/M for 3 days. The dog was monitored over this period for any signs of recurrence.The occurrence of paraphimosis in this patient aligns with findings by (Boothe, 2003 and Michel, 2005) , who observed that paraphimosis was most commonly seen in dogs under 1 year of age, with diagnosis primarily determined by physical examination of the prepuce and penis at the time of presentation. The primary goal in treatment of paraphimosis is to reposition the penis into the prepuce as soon as possible before the tissue compromises and to prevent its recurrence (Kutzler,2023). "The prognosis varies from good to guarded for resolution of paraphimosis, depending on the severity and duration of clinical signs" (Kutzler,2023).

4. CONCLUSION

The present case reports successful management of paraphimosis in a dog using hypertonic DNS solution and ice packs. Once the swelling had sufficiently decreased, Lignocaine gel was applied topically for pain management and lubrication, allowing for a gentle repositioning of the penis into the preputial sheath Prognosis was good. No further complications were observed.

ETHICAL APPROVAL

Animal Ethic committee approval has been collected and preserved by the author(s).

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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