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Hypospadias complicated with megacolon in a pup

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Abstract

Hypospadias is a congenital anomaly of the external genitalia of the male animals. 30 days old German shepherd pup was reported with difficulty in defecation and urination. Radiography of abdomen revealed megacolon with impacted faeces. At necropsy hypospadias, an improper fusion of the distal urethra and a small penis without the prepuce cover and urethra opening located ventral to anus, atresia ani with a small urethro-rectal fistula and megacolon dilated five times the normal size up to a length of 19 cm, with impacted faeces were observed. Based on the history, clinical signs and necropsy lesions the pup was confirmed as hypospadias complicated with megacolon. To our best of knowledge, this is the first report of hypospadias complicated with megacolon in a pup.

Keywords: Hypospadias, megacolon, atresia ani, urethro-rectal fistula, pup

Introduction

Hypospadias is a congenital anomaly of the external genitalia in male animals ^[1] and the cause was unknown and probably thought that the affected fetus might secrete inadequate quantity of testosterone to dihydrotestosterone in the target tissues of the urogenital sinus and external genitalia ^[2, 3]. One author recorded hypospadias with unilateral retained testicle, urinary incontinence and absence of fully formed sheath in a three month-old mongrel dog ^[4] and in a 14 week old, intact male mongrel dog ^[5]. Hypospadias with mega colon in 9 month old Persian cat in Korea ^[6].

Materials and Method

30 days old German shepherd pup was reported to Madras Veterinary College teaching hospital with the history of with difficulty in defecation and urination. Radiography of abdomen revealed megacolon. During examination these pups were collapsed. Detailed post-mortem examinations of the dead puppies were conducted. Tissue samples from various organs were collected in 10 percent formalin for histopathology.

Results



30 days old male German shepherd pup had hypospadias, an improper fusion of the distal urethra and a small penis without the prepuce cover and urethra opening located ventral to anus, atresia ani with a small urethro-rectal fistula and the important clinical signs observed were difficulty in defecation and urination. Radiography of abdomen revealed an enlarged/dilated

colon impacted with faeces and radio opaque bony spicules. Only dribbling of urine mixed with very little faeces was passed through a very small fistula near the anus. Before initiation of treatment the pup collapsed. At necropsy, pup was in a poor condition and visible mucous membranes were congested. Abdominal cavity contained about 10 mL of clear serous fluid. The colon was dilated five times the normal size up to a length of 19cm. There was no anal opening. There was a small fistula connecting the caudal pelvic urethra and caudoventral rectum through which urine mixed faeces was observed. Wedge shaped infarct was observed in both the kidneys.

On histopathological examination, dilated colon showed degeneration and necrosis of the mucosa. Hyperplasia of the submucosal glands and a few showed cystic dilatation. Moderate infiltration of lymphocytes and plasma cells with occasional macrophages were observed. Kidney showed severe infiltration of mononuclear cells in the interstitial space.

Discussion

Thirty days old German shepherd showed hypospadias and atresia ani with a small urethrorectal fistula with difficulty in defecation and urination. Only dribbling of urine mixed with a very little faeces was passed through a very small fistula near the anus [4, 5]. Radiography of abdomen revealed megacolon with impacted faeces. Colon was dilated five times the normal size up to a length of 19cm. Small fistula connected the urethra and anus.

Conclusion

Hypospadias in 30 days-old German shepherd showed anury and atresia ani with a small urethrorectal fistula with difficulty in defecation and urination. Radiography of abdomen revealed megacolon, dilated five times the normal size up to a length of 19 cm, with impacted faeces

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