An Unusual case of Cystolith in a Bitch

L. RANGANATH, Dept. of Surgery, N.R. JAYAGOPALA REDDY and K.G. UMESH, Dept. of Medicine, Veterinary College, U.A.S., Hebbal, Bangalore.

Indian Vet. J. (June 1992) : (69), 6, 550

Abstract

Uroliths arising out of metabolic origin like oxalate and urate are more common in male dogs and infection has no role in their occurrence (Bovee and Mc Guire, 1984). Incidence of calcium oxalate stones is relatively rare (Hesse, 1990). The following report describes one such case.

Case history: A bitch aged ten years was presented to the College with a complaint of purulent vaginal discharge and decreased appetite but with no urinary problems. On physical examination, there was distension of the abdomen, infected conjunctiva and sticky discharge in the vulval lips. Haematological studies revealed leucocytosis and neutrophilia. Hence the case was diagnosed as open pyometra.

Treatment

Ovarohysterectomy was decided. The animal was prepared for surgery. Triflupromazine Hcl (Siquil) was administered intravenously at the rate of 1 mg/kg as pre-anaesthetic. The ventral midline was shaved and prepared for surgery. General anaesthesia was induced with thiopentone sodium (Intraval sodium), intravenously at the rate of 25 mg/kg body weight, further maintained with Halothane oxygen mixture.

Ventral midline laprotomy was performed to locate the uterus; the bladder was compressed to evacuate the urine as it was distended. During this time a hard mass was felt inside. Cystotomy was performed to retrieve a 31 mm diameter rhomboid shaped cystolith weighing 14.2 gm with a few more calculi. The bladder was flushed with normal saline to remove smaller calculi and then it was closed with double row of continuous inversion sutures (Cushing pattern followed by Lambert pattern) with 2.0 chromic catgut. Ovarohysterectomy was also performed to remove the pus-filled uterus. The ventral midline was closed by placing a series of simple interrupted sutures using polyglactin 910 and the skin was approximated with horizontal mattress suture using silk thread No.1.

Post-operatively 250 mg of ampicillin (Roscillin) was administered for five days twice daily by the intra-muscular route. Nefrotec (Cystone - Himalaya) was given for 30 days at the rate of one tablet twice daily. The sutures were removed on the eighth post-operative day and patient recovered uneventfully. The calculus was subjected to chemical analysis to know its composition by the colorimetric method to Merckognost-Urinary calculi analysis, Cat. No.11003, Merck. The composition of the calculus was found to be calcium oxalate with smaller quantities of ammonium and magnesium.

Discussion

Urinary tract infection has some influence on the incidence of formation of uroliths of metabolic origin such as calcium oxalate (Bovee, 1984). Struvite is the main type of stone found with urinary tract infection, the latter being an important causal factor. However, the correlation between uterine infection and the development of calculi has not been established (Hesse1990). The bitch in our trial was administered Nefrotec tablets to prevent the possible recurrence of cystolithiasis.

Summary

While operating on a ten-year old German Spitz bitch for hysterectomy the cystic calculus was found accidentally. On chemical analysis it was found to be a calcium oxalate stone which was an uncommon finding considering the symptoms exhibited by the animal. The animal had an uneventful recovery.

Acknowledgement

The authors are highly thankful to the Director of Instruction, Veterinary College, Bangalore, for providing necessary facilities and encouragement.

References
