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R Priyanka

Undergraduate Student, Rajiv Gandhi Institute of Veterinary Education and Research, Kurumbapet, Puducherry, India

I Shalini

Ph.D. Scholar, Department of Veterinary Gynaecology and Obstetrics, College of Veterinary and Animal Sciences, Santosh Nagar, Mannuthy, Thrissur, Kerala, India

S Kantharaj

Associate Professor and Head of the Department, Department of Veterinary Gynaecology and Obstetrics, Rajiv Gandhi Institute of Veterinary Education and Research Kurumbapet, Puducherry, India

H Hemalatha

Assistant Professor (C), Department of Veterinary Gynaecology and Obstetrics Rajiv Gandhi Institute of Veterinary Education and Research, Kurumbapet, Puducherry, India

K Murugavel

Professor, Department of Veterinary Gynaecology and Obstetrics, Rajiv Gandhi Institute of Veterinary Education and Research, Kurumbapet, Puducherry, India

Corresponding Author:

S Kantharaj

Associate Professor and Head of the Department, Department of Veterinary Gynaecology and Obstetrics, Rajiv Gandhi Institute of Veterinary Education and Research Kurumbapet, Puducherry, India

Surgical management of inguinal hysterocele in a Mongrel dog: A case report

R Priyanka, I Shalini, S Kantharaj, H Hemalatha and K Murugavel

Abstract

A five-year-old non-descriptive bitch was presented to the clinics with a localized swelling in the caudal right ventral abdomen. Based on physical and radio graphical examination the case was diagnosed as inguinal hysterocele. To safeguard the life of the dam, it was decided to perform an emergency laparohysterotomy. Subsequently, the animal became pregnant without untoward incidence.

Keywords: Canine, hysterocele, caudoventral, laparohysterotomy

1. Introduction

An inguinal hernia indicates the escape of the abdominal contents through a defect located in the ventral abdomen and results in the swelling of the caudal ventral abdomen. The condition is frequently documented in female dogs and most often diagnosed in intact, middle-aged bitches [1]. Inguinal hysterocele indicates the herniation of the uterus through the inguinal canal that occurs most commonly in the toy breed of dogs [2]. The predisposing factors include anatomical cause-shorter inguinal canal which is larger in diameter [3], nutrition, trauma, and increased abdominal pressure due to obesity or pregnancy [2]. The condition can be diagnosed based on the history, physical examination, and by ultrasonography. Radiography can also be employed to confirm the condition in advanced stages of pregnancy [4]. Inguinal hysterocele refers to herniation of the uterus through the inguinal canal and is described under the category of caudal ventral abdominal hernias [3]. This communication reports the diagnosis and early surgical intervention to save the life of a bitch affected with inguinal hysterocele.

2. Case History and Observation

A five-year-old non-descriptive bitch weighing about 14 kgs was presented to the small animal unit of VGO, Veterinary Clinical Complex, RIVER, with a localized swelling in the caudal ventral abdomen (Fig 1) on the right side for the past day. History revealed that the animal met with an automobile accident a day before it was presented. On clinical examination, all the vital parameters are within normal range. On physical examination, the localized swelling revealed four-finger dilatation of the hernial ring. Radiography of the pelvis and abdomen revealed the presence of fetal structures in the herniated uterus (Fig 2). Ultrasonography revealed the presence of live fetuses with a head diameter of 22.0 mm. Based on head diameter the gestational age was determined as 51 ± 2 days (Fig 3). Based on history and radiography the case was diagnosed as inguinal hysterocele. To safeguard the life of the dam, it was decided to perform an emergency laparohysterotomy

3. Treatment

The animal was premeditated using Inj. Glycopyrrolate 0.2 mg/kg I/V, Inj. Tramadol @ 2 mg/kg and sedated with Inj. Diazepam @ 0.5 mg/kg I/V. The Ventrolateral aspect of the abdomen was aseptically prepared. Anaesthesia was induced with Inj. Propofol @ 3.5 mg/kg I/V and maintained with the same. The skin incision was carried out on the protruded mass and the muscle tear was located to identify the gravid uterus with its contents. Since the gravid uterine mass could not be replaced in its original position, it was decided to remove the fetus by performing hysterotomy to safeguard the life of the dam.

The uterus was incised and four live foetuses were removed which succumbed to death a few minutes after delivery. The uterine incision, muscle tear, subcutaneous tissue and the skin were closed as per standard procedures. A collagen-based ointment and cotton gauze stent were kept over the skin suture line and fixed using dynaplast. The dog was administered Inj. Cefotaxim 500 mg slow I/V and Inj. Tramadol @ 2 mg/Kg I/V. Postoperative care included Tab. Cefotaxim 200 mg P.O., Tab. Meloxicam 2.5 mg BID P.O, Tab. Serratiopeptidase 10 mg BID and multivitamin supplement BID for another six days. On the 7th day after surgery, the animal was healthy, sutures were intact and food and water intake were normal. Sutures were removed on the 10th day post-surgery and the dog had an uneventful recovery without any untoward incidence.



Fig 1: Dog with right cauda-ventral abdominal protrusion

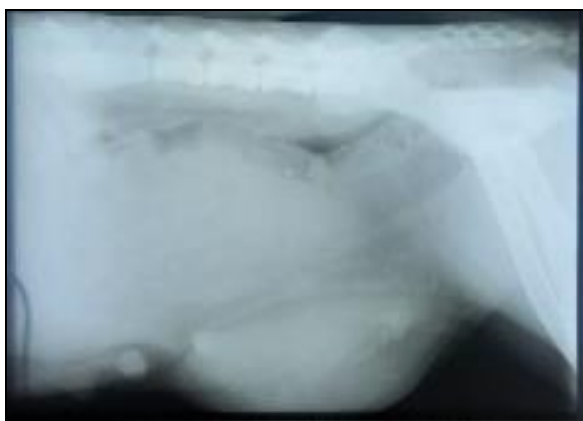


Fig 2: Radiography depicting herniated gravid uterus

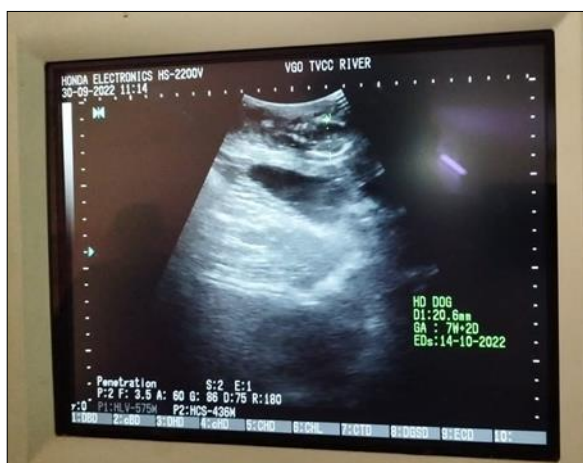


Fig 3: Ultrasonography revealed fetal structure

due to a natural opening like the inguinal canal [5]. It is more commonly seen in adult female dogs than in males. Oestrogens produced by the ovaries in female dogs predispose them to inguinal hernia by changing the strength and character of connective tissue, ligaments, and muscles in the inguinal area [6]. Other factors that could predispose include altered nutrition resulting in a weakened abdominal wall and accumulation of fat around the round ligament that dilates the vaginal process and inguinal canal. In the present case, the development of inguinal hysterocele was due to traumatic causes. Complications of surgical repair include infection, wound dehiscence, hematoma, peritonitis, recurrence of hernia and death [7]. Incarceration of the uterus may also occur as a complication of hernia [1]. However, such complications were avoided in the present case due to timely intervention in terms of diagnosis, surgical correction and post-operative care.

5. Conclusion

It can be concluded that inguinal hysterocele can be easily managed by timely intervention and surgical correction without affecting the conception during a subsequent pregnancy.

6. References

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4. Discussion

Hernia refers to the protrusion of an organ or tissue through an opening that may be caused either by a traumatic cause or