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Incidence of perineal hernia in dogs

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Abstract

Perineal hernia is common in old intact male dogs. This present study was carried out among the dogs presented to Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal during a period of one year from September 2024 to September 2025. A total of 5046 cases of dogs were brought to the Department of Veterinary Surgery and Radiology. Out these 5046 cases examined, 39 cases had different types of hernias. Out of these hernias, 6 were perineal hernias (15.38%). Among these cases, 100% cases were reported in male dogs and highly reported in spitz breed and showed highest incidence in the age group of 7 to 10 years.

Keywords: Dogs, perineal hernia, incidence

1. Introduction

A hernia is the protrusion of an organ or a part through a defect in the wall of the anatomical cavity in which it lies. Perineal hernia is the protrusion of the abdominal and pelvic contents into the pelvic area through the defect in the pelvic diaphragm. It occurs due to atrophy of the muscles that makeup the pelvic diaphragm consisting of coccygeal, levator ani, external anal sphincter muscles and internal obturator muscles. This condition commonly occurs in middle aged or aging intact male dogs and rarely in female dogs. (Bellenger and Canfield, 2003) [1]. Perineal hernia has been documented in various species such as humans, dogs, cats and several domestic animals and this condition is most common in dogs. (Welches, 1992) [2]. Perineal hernia classified into four types on the basis of anatomical location. The caudoventral hernia situated between levator ani, external anal sphincter and internal obturator muscles is most commonly encountered. Less common variants include the sciatic hernia, located between the sacrotuberous ligament and coccygeus muscle; the dorsal hernia found between the levator ani and coccygeus muscles and the ventral hernia found between ischiourethralis, bulbocavernosus and ischiocavernosus muscles (Dorn *et al.*, 1982) [3]. Cross breeds were most commonly affected followed by Chihuahuas, Shih Tzus, Pomeranians and Poodles, indicating greater predisposition among small and toy breeds to perineal hernia. (Sangmanee *et al.*, 2025) [4]. Several factors may predispose to this condition, including anatomical variations, hormonal imbalances, neurogenic atrophy of pelvic diaphragm muscles, senile atrophy (Stoll, 2002) [5]. The most commonly observed clinical signs were perianal swelling, constipation, tenesmus, hematochezia, urinary incontinence, stranguria, vomition and diarrhoea (Szabo *et al.*, 2007) [6]. The primary objective of this retrospective analysis is to determine the incidence and distribution of perineal hernia in dogs with respect to age, sex, breed and clinical presentation.

2. Materials and Methods

The present study was carried out in the Department of Veterinary Surgery and Radiology, Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, Tamil Nadu. The incidence of perineal hernia in dogs regarding to age, gender, breed and location of hernia were recorded from September 2024 to September 2025.

3. Results and Discussion

A total of 5521 animals were brought to the Department of Veterinary Surgery and Radiology,

Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, between September 2024 to September 2025. Of these, 5046 canine cases were reported. 16 umbilical hernias, 8 inguinal hernias, 4 ventral hernias, 1 diaphragmatic hernia, 6 perineal hernias and 4 lateral hernias were observed in this study. In the study on perineal hernia, Anjitha *et al.* (2023) ^[14] found that there were 15.38% perineal hernias, 41.03% umbilical hernias, 20.51% inguinal hernias, 10.26% ventral hernias and 2.56% diaphragmatic hernias.

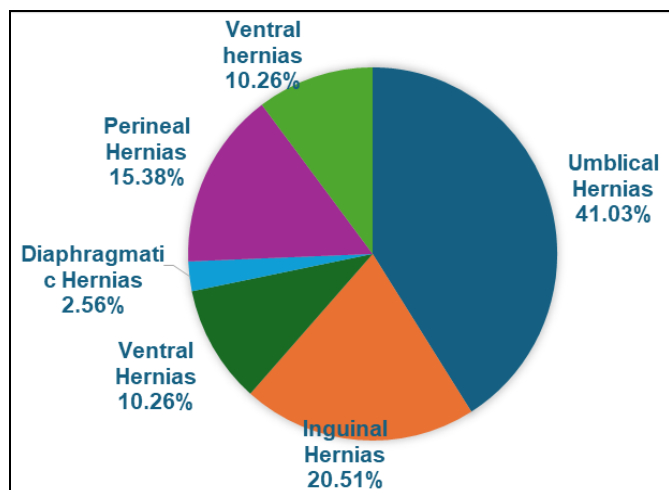


Fig 1: Classification of different types of canine hernias

3.1 Age- wise incidence of perineal hernia in dogs

The incidence of perineal hernia was highest among dogs aged in the age group of 7 to 10 years (3/6, 50%) followed by dogs aged above 10 years (2/6, 33.33%) and least incidence of perineal hernia was reported in the age group of four to seven years (1/6, 16.67%). This age range is consistent with Burrows and Harvey (1973) ^[9], Weaver and Omamegbe (1981) ^[7], White and Herriage (1986) ^[8], Stoll *et al.* (2022) ^[5], Hatch *et al.* (2025) indicating that perineal hernia is primarily a condition of older, intact males. The higher incidence in geriatric dogs may be attributed to degenerative and neurogenic atrophy of the pelvic diaphragm muscles, as demonstrated by Sjollem *et al.* (1993) ^[10].

Table 1: Incidence of perineal hernia across different age groups in dogs

Age	Number of animals	Percentage
4 to 7	1	16.67%
7 to 10	3	50.00%
more than 10 years	2	33.33%

3.2 Gender- wise incidence of perineal hernia in dogs

In the present study, perineal hernia was exclusively reported only in male dogs (6/6, 100%). These observations were consistent with earlier reports indicating that the condition occurs predominantly in intact males and it is rarely encountered in females (Niles and Williams, 1999; Sontas *et al.*, 2008) ^[12, 11]. These findings are consistent with the observations of Desai (1982) ^[13] who reported that the levator ani muscle in female is significantly longer, heavier and larger than that of males. Additionally, Sangmanee *et al.* (2025) ^[4] suggested that androgen dependent prostatic enlargement causes chronic straining and pelvic diaphragm weakening in males, predisposing them to herniation which explains the higher incidence observed in male dogs in this study.

3.3 Breed wise incidence of perineal hernia in dogs

Among the breeds presented with history of perineal hernia in this study, Spitz dog breed (4/6, 66.7 %) showed a highest incidence followed by non- descriptive breeds (2/6, 33.33%). The predominance of Spitz may reflect local distribution and a possible breed related anatomical predisposition. Similar observations were made by Anjitha *et al.* (2023) ^[14], who reported a higher incidence in small breeds like Pomeranians followed by non-descriptive breeds, German shepherd, Labrador and Doberman breeds. Overall, the findings indicate that small breeds are more commonly affected, likely due to regional breed prevalence and pelvic anatomical factors.

Table 2: Breed wise incidence of perineal hernia in dogs

Name of Breed	Number of animals affected	Percentage
Spitz	4	66.67%
Non - Descriptive breeds	2	33.33%

3.4 Unilateral/ Bilateral occurrence of perineal hernia

In this present study, there is a higher incidence of unilateral perineal hernia (5/6, 83.33%) followed by bilateral perineal hernia (1/6, 16.67%). This is consistent with findings of Pratummintra *et al.* (2013) which revealed that 7 dogs out of 9 dogs (77.78%) had unilateral perineal hernia.

Table 3: Unilateral/ Bilateral occurrence of perineal hernia in dogs

Unilateral/ Bilateral	Number of animals affected	Percentage (%)
Unilateral	5	83.33%
Bilateral	1	16.67%

3.5 Side of occurrence of perineal hernia

Four dogs (80%) of unilateral perineal hernia cases had right side occurrence of perineal hernia whereas one dog (20%) had hernia on left side. These results were similar to the findings of Al-Akra (2015) which reveals that 67.9% of unilateral perineal hernias were on the right side.

Table 4: Side of occurrence of perineal hernia among unilateral hernias

Side of occurrence	Number	Percentage
Right	4	80.00%
Left	1	20.00%

3.6 Castration status of the dogs

In this study, perineal hernia was commonly reported in uncastrated male dogs (6/6, 100%). This report is similar with the findings of Hosgood *et al.* (1995) ^[17] who reported that out of 100 dogs with perineal hernia, 83 were uncastrated males. This result support the findings of Sangmanee *et al.* (2025) ^[4] that influence of androgens on prostatic enlargement and pelvic diaphragm weakening. The condition was rarely observed in neutered males, confirming intact status as a key risk factor for perineal hernia occurrence.

4. Conclusion

This study revealed the highest incidence of perineal hernia in male dogs and the dogs were castrated. Male dogs between the age group of seven and ten years showed the maximum number of occurrences. The incidence of perineal hernia in spitz breed showed the highest number of occurrences followed by non- descriptive breeds.

Conflict of Interest

Not available

Financial Support

Not available

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