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Laparoscopic treatment of paraprostatic cyst in two dogs – complete resection, and partial resection with omentalization: a case report

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Two intact male dogs were evaluated for symptoms, including hematuria, prostatomegaly, anuria, lethargy, and abdominal mass. Presurgical evaluations, including complete physical examinations, blood examinations, abdominal radiography with contrast (only in Case 2), ultrasonography, and computed tomography and magnetic resonance imaging (only in Case 1), were performed. A paraprostatic cyst was diagnosed initially, and laparoscopic exploration and surgery were performed. Complete resection was performed in case 1, whereas partial resection with omentalization was performed in case 2. Histopathological examination of the tissue samples confirmed the presence of paraprostatic pseudocysts in both cases, with no evidence of an epithelial lining. These two cases represent the first documented instances of laparoscopic treatment for extraparenchymal prostatic cysts. The laparoscopic treatment proved feasible even in the case of a giant cyst causing anuria (Case 2). Paraprostatic cysts should be considered a potential differential diagnosis for abnormal urination accompanied by an abdominal mass, and long-term postoperative follow-up is necessary.

KEYWORDS

abdominal mass, prostatic cyst, paraprostatic pseudocyst, computed tomography, magnetic resonance imaging, laparoscopic resection, omentalization, dog

1 Introduction

Prostatic diseases are common in older, intact male, large-breed dogs, especially in German shepherds and Doberman pinchers (1, 2). Post-mortem examinations have revealed that 75.6% of dogs dying from prostate-unrelated disorders have prostatic diseases (3). Prostatic cysts (PCs) account for 1.1–14% of all prostatic diseases (1, 3, 4), and approximately 42% of PCs become infected (1). Multiple cystic changes rather than large solitary cysts are more common (5). Intraparenchymal cysts (IPCs, intraprostatic cysts, retention cysts) originate from microcysts, resulting from the accumulation of prostatic secretions due to increased production or obstruction of ducts with prostatic hyperplasia (1). In contrast, the etiology of extraparenchymal cysts (EPCs, paraprostatic cysts; pPCs) is not fully understood,