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Case Report

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## Intracapsular Prostatic Omentalization: A New Technique for Management of Prostatic Abscess in Dogs: Case Report

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### Abstract

There are many techniques have been used in the surgical treatment of prostatitis, prostatic abscesses and prostatic cysts. Partial or complete prostatectomy, marsupialization, or debridement and drainage have all been advocated; unfortunately all of these techniques are associated with complications such as incontinence, cyst or abscess recurrence, etc. More recently, prostatic omentalization has been described. In this procedure, after opening and draining any cystic cavities or abscesses within the prostate, a portion of the omentum is passed through the prostate by blunt dissection. This improves the vascular supply to the affected tissue and prevents re-formation of a closed cystic/abscess cavity. It is very effective in preventing recurrence of disease. In this paper, we will describe omentalization of the prostate.

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Keywords: Dog, Prostate, Cavity, Omentalization

### 1. Introduction

The prostate is the only male sexual accessory gland. Its main role is the secretion of prostatic fluid, which constitutes the major part of the volume of ejaculated sperm. The prostate develops under the control of testosterone, the hormone produced by the testicles and adrenal glands. The prostate becomes more and more sensitive to this hormone.

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Under the hormonal influence the prostate undergoes physiological and sometimes pathological changes. In the elderly dog the prostate is the site of many affections on the one hand benign as prostatic hyperplasia and on the other hand serious, cysts, abscesses and more rare prostatic adenocarcinomas. It is therefore interesting to know these prostatic conditions, in order to better detect and offer the best treatment.

Clinical signs in dogs with prostate pathology include systemic signs such as fever, depression, anorexia, weakness, depression, weight loss, gastrointestinal signs (constipation, rectal tenesmus) and locomotors (arched back, stiffness of the hind legs, A balanced gait, and a purulent and blood flow at the end of the penis are often frequent. Transrectal exploration of the prostate is often very painful (Klausner et al., 1995; Fontbonne, 2007; Root-Kusritz et al., 2000; Smith, 2008).

## 2. Case presentation

### 2.1. Case history

A seven year male cross breed dog was presented to surgery and veterinary imaging service at the Batna University with expiratory dyspnea; vomiting, abdominal palpation was painful. An intra-abdominal mass, hard and at the level of the sheath was diagnosed. The temperature, pulse and respiration were 40.3 C, 91/min, 19/min respectively and purulent urethral discharge associate with rectal palpation of prostate elicited pain.

#### 2.1.1. Radiology

Radiographic examination of the pelvic lateral region characterized by an increase in prostatic volume is great than 70% of the pubicsacral promontory distance (Finn, 1989; Fontbonne et al., 2007) (Fig. 1).



Fig. 1. Ultrasonography of prostate reveals the presence of two cavity variables.

#### 2.1.2. Ultrasound

Demonstrate an increase in prostatic volume with modification echogenicity of prostatic parenchyma. The prostate reveals the presence of two cavity variables anechoic or hypoechoic of variable size (Fig. 1), delimited by a thin wall with posterior reinforcement (Finn et al., 1995; Nyland, 2002; Keally, 2005). Trans-abdominal ultrasonography fine needle aspiration biopsy (FNAB) shows the presence of pus in the cavities (Fig. 2).



Fig. 2. Trans- abdominal ultrasonography fine needle aspiration biopsy (FNAB).

### 2.1.3. Surgical treatment

Access to the prostate is usually achieved through a midline incision of the caudoventral abdomen. A perineal approach has also been described. The prostate is exposed and isolated from surrounding tissue using moist laparotomy sponges (Johnston, 2000). In some instance spathogenic tissue, provides lymphatic drainage, and minimizes the formation of postoperative adhesions by covering surgically created lesions. Omentalization is the current treatment of choice for cavity lesions and urethral laceration, the omentum is placed into the prostate around or along the prostatic urethra (Fig. 3). After caudal celiotomy and exposure of the prostate, intracapsular abscesses or cysts are approached through a bilateral stab incision into the ventral prostatic capsule. The dorsolateral prostatic tissue should be avoided to minimize the risk for damage to the neurovascular supply (Salomon, 2006). The lesions are debrided by digital manipulation, suction, and lavage. During debridement, damage to the prostatic urethra may be avoided by palpation of the preoperatively placed catheter. After debridement, the prostatic capsule is unilaterally resected to create an opening for the omentum Fig. 4. A tissue forceps is passed through the contralateral incision to grasp the omentum. The omentum is drawn through the capsulectomy site and around the urethra. The omental pedicle is then grasped and sutured to the omentum at the entry site.

### 2.1.4. Postoperative care

1. Broad spectrum antibiotics for 5-7 days postoperatively. 2. In most cases the urinary catheter is removed immediately postop. It may be maintained, with a closed collection set, in dogs that are severely dysuric. 3. Drain removal 3-4 days postoperatively.



Fig. 3. Omentum surgical preparation.



Fig. 4. Prostate omentalization.

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