ISSN:
Print - 2277 - 0593
Online - 2315 - 7461

Journal of Natural Science, Engineering and Technology

DOG CASTRATION RECORDS IN VETERINARY TEACHING HOSPITAL, FUNAAB

[1]T. A. AJADI, [2]M. O. OYEYEMI

[1]Department of Veterinary Public Health and Reproduction,
Federal University of Agriculture, Abeokuta.
[2]Department of Veterinary Surgery and Reproduction,
University of Ibadan, Ibadan, Oyo State.
***Corresponding Author**:ayisat_ajadi@yahoo.com; Tel: +2348039560868

ABSTRACT

This study was aimed at determining the records of surgical castration in dogs by reviewing the records of dogs presented to the Veterinary Teaching Hospital, Federal University of Agriculture, Abeokuta between May, 2005 and October, 2012 . Data recorded included breed, age of the dogs at presentation and presenting history and clinical signs. It was only thirteen dogs that were presented for castration out of five hundred and twenty five male dogs presented to the hospital during this period. They comprised of three breeds of dogs with mean age of 3.5 ± 2.1 years. General anaesthesia was used in twelve (12) of the thirteen (13) cases, while sedation with local anaesthesia was employed in one (1) case. The rate of surgical castration in VTH, FUNAAB is very low while castration could be said to be requested for later in life.

Keywords: Dogs, surgical castration, breeds, sedation, male dogs

INTRODUCTION

Castration in male animals can be defined as the direct or indirect removal or destruction of the testes in order to render them impotent and prevent production of testosterone (Kustritz, 2007). Surgical castration is the contraceptive technique of choice and is widely accepted for population control and helps to prevent high population densities, animal suffering and the spread of zoonosis (Trevejo et al., 2011). In addition, there are behavioural and other health benefits to castrating dogs and cats as opposed to leaving them sexually intact, such as decreased urine spraying in male cats and decreased incidence of certain neoplasms of the reproductive organ in male dogs and cats (Kustritz, 2007).

There has been an exponential growth in the number of pet dogs being kept in Nigeria. In addition, the number of stray dogs or abandon dogs is increasing in Nigeria with attendant risk of rabies and other dog related injuries to humans (Omudu and Amuta,

2007). However, it appeared that the frequency of request for gonadectomy is very small compared with the number of dogs being kept. There appeared to be no record on the frequency of castration in dogs in Nigeria and the poor attitude of owners towards castrating their dogs might have contributed to the high prevalence of stray or abandon dogs (Amber, 2008). This study therefore evaluated the records of surgical castration in dogs with reference to breeds of dogs, indications for castration, age at castration, anaesthetic techniques and the complications associated with surgical castration in dogs presented to the Veterinary Teaching Hospital, Federal University of Agriculture, Abeokuta.

MATERIALS AND METHODS

The records of dogs presented at the Veterinary Teaching Hospital, Federal University of Agriculture, Abeokuta, Ogun State between May, 2005 and October, 2012 were reviewed to determine the prevalence of surgical castration in dogs. Data recorded included breed, age of the dogs at presentation, reason for castration and presenting clinical signs. Information on type of anaesthetic techniques used, whether postoperative analgesic was administered, the use of post- operative antibiotics, the outcome of the surgery and the severity and occurrence of adverse effects such as scrotal swelling, wound dehiscence, scrotal haematoma, and wound infection, anaesthetic complications were also noted .

RESULTS

One thousand, three hundred and forty five (1,345) dogs were registered at the Veterinary Teaching Hospital, FUNAAB during this period, eight hundred and twenty (820) were female dogs while five hundred and twenty five (525) were male dogs. It was only thirteen (13) out of the male dogs that were presented for castration (Table I) given castration rate of 2.5%. Castration in dogs accounted for 23.6% of the 55 surgeries performed during this period. Three breeds of dogs reportedly castrated included Alsatian (5), Local dogs (5) and Rottweiler (3) (Fig. 1). The mean age for the castrated dogs was 3.5 ± 2.1 years with the age ranging between 5 months and 10 years. Elective castration was done in 10 out of 13 cases (77%), while castration was performed secondary to testicular tumor in two (2) cases and chronic ulcerating scrotal dermatitis in one (1) case (Fig. 2). Pre scrotal castration was done in ten cases, while scrotal castration with scrotal ablation was done in three cases (Fig. 3). General anaesthesia was used in twelve of the thirteen cases, while sedation with local anaesthesia was employed in one case (Fig. 4). The common drugs used included lignocaine , xylazine, ketamine and diazepam. In all, complication was recorded in 7 out of 13 dogs given a complication rate of (0.54%), while the complications recorded were scrotal swelling and wound dehiscence (Fig. 5).

Table 1: Records of dogs presented at the Veterinary Teaching Hospital, FUNAAB between May, 2005 and October, 2012

Records	Male	Female	Total
No of registered dogs	525	820	1345
No of dogs presented for vaccination	135	201	336
No of dogs presented for deworming	267	338	605
No of dogs presented for other medical conditions	88	261	349
No of dogs presented for castration	13	0	13
No of dogs presented for spaying	0	4	4
No of dogs presented for caesarean operation	0	7	7
No of dogs presented for other Surgical conditions	22	9	31

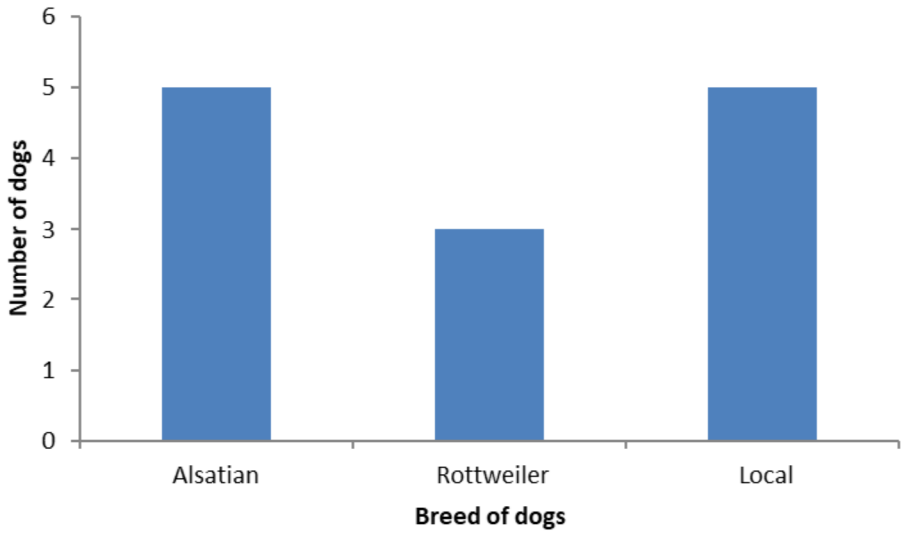


Fig.1: Breed of dogs presented for castration at the Veterinary Teaching Hospital, FUNAAB

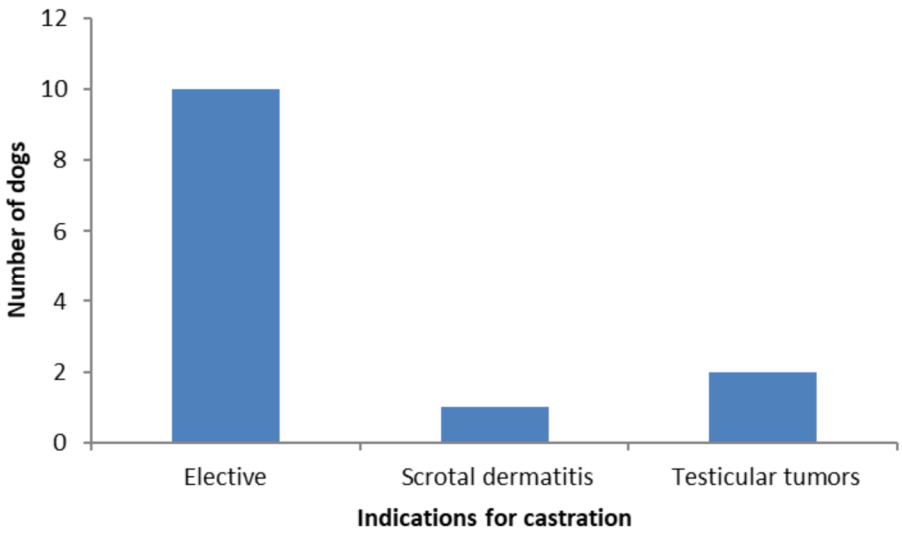
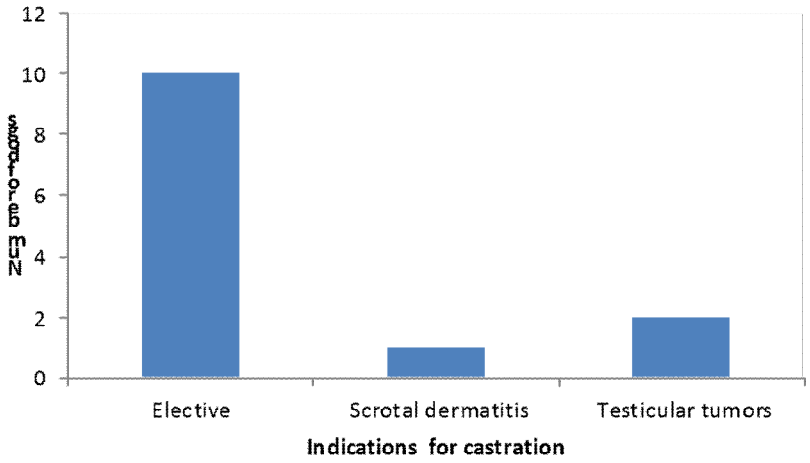


Fig.2: Indications for castration in dogs presented at the Veterinary Teaching Hospital, FUNAAB



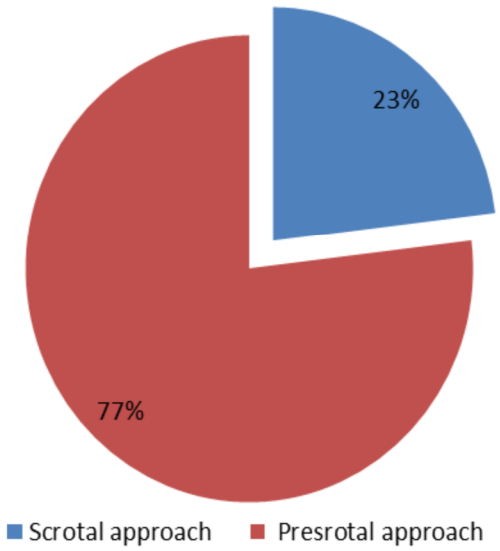


Fig.3: Approaches to dog castration at the veterinary teaching hospital, FUNAAB

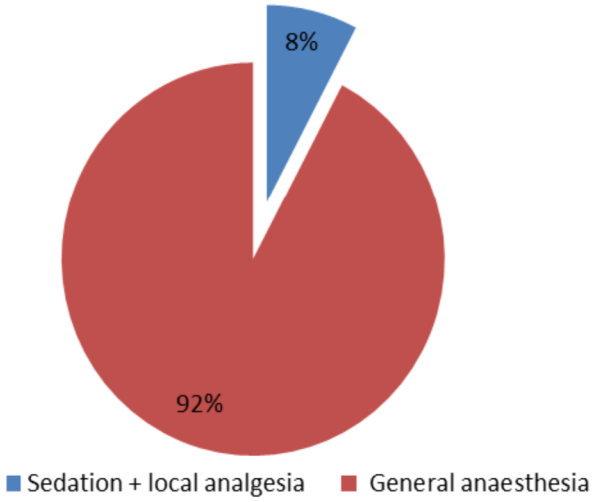


Fig. 4: Anaesthetic techniques for canine castration at the veterinary teaching hospital, FUNAAB

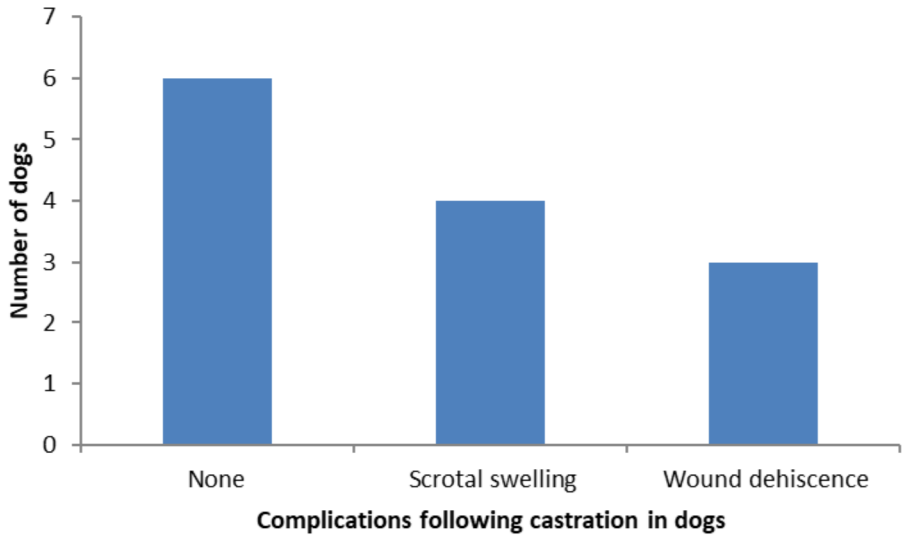


Fig. 5: Complications following castration in dogs presented at the Veterinary Teaching Hospital, FUNAAB

DISCUSSION

The prevalence of castration among dogs has been shown to be related to the economic status of the country (Amber, 2008). For instance, the overall prevalence of castration in dogs in the United States of America was reported to be about 90 percent (Trevejo *et al*., 2011). In Nigeria, few previous works have been carried out to analyse clinical records in some veterinary hospital and private veterinary clinics but have focused on livestock animals. The retrospective analysis of reproductive diseases carried out in Usman Danfodio University teaching hospital, Sokoto was based on cattle, sheep and goat which reported a castration rate of 5.68% (Umaru *et al.,* 2009). Castration rate as low as 0.28% was also reported by Barde *et al.,* (2012) in retrospective analysis of clinical records of ECWA veterinary clinic. The records of castrations in dogs in this study is very low which is in agreement in earlier works though in ruminants. This may be attributed to the general belief that people in Africa are against castration as they want more animals to sell for financial gain (Amber, 2008). Considering the rate of dog abandonment and free roaming dogs in Nigeria and the implication this has on the spread of rabies, it is thus suggested that more awareness is required on the benefits of castration in dogs.

The breeds of dogs reportedly castrated in this study were Alsatian, Rottweiller and local dogs. The reason for this breed prevalence might be associated with the fact that these breeds are the most commonly kept dog breeds in the area. Local dogs were presented more for castration probably because they do not have significant financial gain in terms of breeding and are more prone to roaming. This study also showed that apart from elective reasons for castration, behavioural, testicular and scrotal diseases are other reasons for castration in the dogs. This is in agreement with earlier reports in the United States of America (Trevejo et al., 2011).

There is controversy on the appropriate age for castration in dogs. Early castration in dogs has been attributed to poor development of the secondary sexual character in dogs (Root *et al.,* 1997). Other adverse effect of early age castration was delayed closure of the distal radial physis (Bloomberg, 1996). The mean age of castration in this study was 3.5 ± 2.1 years with age ranging between 5 months and ten years. A study in the United States of America showed that 55 percent of dogs are castrated between 6-12 months of age (Trevejo *et al.,* 2011). These findings suggested that dogs are probably castrated late after the owner had discovered a behavioural or health problem related to the male sexual organ. This further suggested that the practice of castration in dogs is still not well accepted in Nigeria.

There are welfare concerns regarding surgical castration. Such concerns are that surgery is painful and places the animal at risk because it requires general anaesthesia (Soto *et al.,* 2005). The results of this study showed that general anaesthesia was the preferred anaesthesia technique used for castration of dogs in the practice. This might only be related to the preference of the surgeon rather than any other reasons. The commonest drugs used are xylazine, ketamine, diazepam and lignocaine. The choice of drugs may be associated with availability and the cost of the drugs. Previous study has also shown that ketamine is the most preferred anaesthetic agents in dogs because of the safety being the only anaesthetic agent with cardio stimulatory effect (Wagner & Helleyer, 2000).

A study of Canadian Veterinary Private Practitioners found complication rates of 19% for castrating male dogs (Pollari & Bonnet, 1996).Serious complications such as infections, scrotal abscesses, rupture of the surgical wound, and chewed out sutures were reported at a 1- 4% frequency, with castration surgeries accounting for 10% of these complications (Lund *et al*., 2006). The main complications reported in this study are scrotal swelling and scrotal mutilation . However, the rate of complications in this study was quite high compared to that reported in Canada. This may be related to the temperament of the dog and the absence of good home care.

CONCLUSION

In conclusion, the rate of surgical castration in VTH, FUNAAB is very low and castration is often requested for later in life. Also complications associated with castration though not severe will be considered to be very high. Owing to the growing welfare concern about surgical castration, there is thus the need to increase awareness on the benefits of castration in dogs and as well as the knowledge of alternatives to surgical castration.

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(Manuscript received: 4th May, 2017; accepted: 3rd October, 2017).