

Distribution of Reproductive Cases Presented at the University Of Ibadan Veterinary Teaching Hospital, Nigeria (1995-2009)

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Abstract: We studied the distribution of reproductive cases presented at the University of Ibadan Veterinary Teaching Hospital, Nigeria for 15 years (1995 to 2009). Records of presented cases were sourced from the case files and subjected to descriptive analysis. The recorded reproduction cases were distributed by the reproductive condition, species, breed, sex and year of occurrence. Dystocia>pregnancy diagnosis>mastitis>transmissible venereal tumor>metritis were the most frequently presented conditions while 68.6 and 18.1% of the presented animals were of the canine (mostly German shepherd) and caprine (mostly West African dwarf) species respectively. 83.7% of these presented animals were female and high frequency of cases were recorded in the in the year 2000 and above. These results were discussed and it was concluded that the presentation of animals with reproductive conditions are dependent on clients' awareness of Veterinary services, economic status and managerial practices as well as the sex and socioeconomic potential of the patients.

Key words: Distribution, reproductive cases, teaching hospital, veterinary

INTRODUCTION

Numerous reproductive diseases have been identified and these include: Transmissible venereal tumor, orchitis, dystocia, pyometra, metritis, mastitis, scrotal dermatitis, vaginitis etc. (Akusu *et al.*, 2001; Oyeyemi *et al.*, 2000). These reproductive conditions are of continuous concern to pet owners, farmers and veterinarians not just because they interrupt the reproductive cycle of an animal but also because of the economic loss accompanying those animals (Oyeyemi *et al.*, 2000).

In order to salvage these, they are sometimes presented at the referral centers such as the Veterinary Teaching Hospital where theriogenologists can attend to them. The distribution of these reproductive cases and conditions presented over the period of 15 years (1995-2009) at the Veterinary Teaching Hospital, University of Ibadan was hereby studied.

MATERIALS AND METHODS

The records of reproductive cases were sourced from the case files of patients presented at the Veterinary Teaching Hospital for the period 1995 to 2009. The proportion (percentage) of the different conditions were calculated using the formula:

$$\left(\frac{\text{Number of occurrence of a condition}}{\text{Total number of reproductive conditions}} \right) \times 100\%$$

The results were then illustrated with bar and pie charts.

RESULTS

Distribution by condition: (Table 1-3) Dystocia, Pregnancy diagnosis, Mastitis, Transmissible Venereal Tumor (TVT) and Metritis (in the order of decreasing frequency) were the most frequently presented conditions. These five (5) conditions only total 47.8% of the forty eight (48) reproductive cases referred or brought into the Hospital within the fifteen years under study.

Distribution by species: The canine (68.6%), caprine (18.1%) and ovine (7.3%) species dominated the animals presented at the hospital during the period under study (Fig. 1).

Distribution by breed: The German shepherd dog (36.24%), the West African dwarf goat (25.08%) and the Nigerian local dog (16.38%) are the breeds that were most frequently presented. While the Duroc (Porcine), Great dane, terrier, poodle (Canine), Ouda (Ovine) and Ndama (Bovine) were rarely presented (Fig. 2).

Distribution by sex: The proportion (83.7%) of female presented for diagnosis and treatment of reproductive

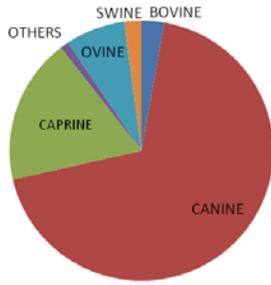


Fig. 1: Distribution by species

conditions is about 5 times that of the male-16.3% (Fig. 3). Specifically, the female of the German shepherd dog (27.18%) and West African dwarf goat (23.34%) were notably common accounting for more than 50% of the presented animals.

Distribution by year: Fewer reproductive conditions were presented at the hospital before year 2000. There was a sharp increase in the patronage of theriogenologists in the year 2000 and the increase was maintained in the recent years (Fig. 4).

Table 1: Distribution by condition (Cases <1%)

Reproductive condition	Frequency	Percentage (%)
Abnormal penile discharge	8	0.70
Balanoposthitis	5	0.44
Caesarean section	4	0.35
Cervicitis	4	0.35
Congenital vulvar aplasia	7	0.61
Cryptorchidism	8	0.70
Extra pendulous teat	4	3.50
Fetal maceration	4	3.50
Leptospirosis	4	3.50
Lochia	3	0.26
Low birth weight	4	0.35
Malnutrition in pregnancy	5	0.44
Mammary gland wound	8	0.70
Ovariohysterectomy	9	0.78
Phimosis	8	0.70
Post abortion problem	4	0.35
Post mating bloody discharge	8	0.70
Post whelping management	3	0.26
Pregnancy toxemia	4	3.50
Preputial tumor	4	0.35
Sertolic cell tumor	5	0.44
Testicular neoplasia	4	0.35
Uterine prolapsed	8	0.70
Uterine torsion	4	0.35
Vaginal hyperplasia	7	0.61
Vaginitis	8	0.70
Vulvitis	4	0.35
Total	156	13.59

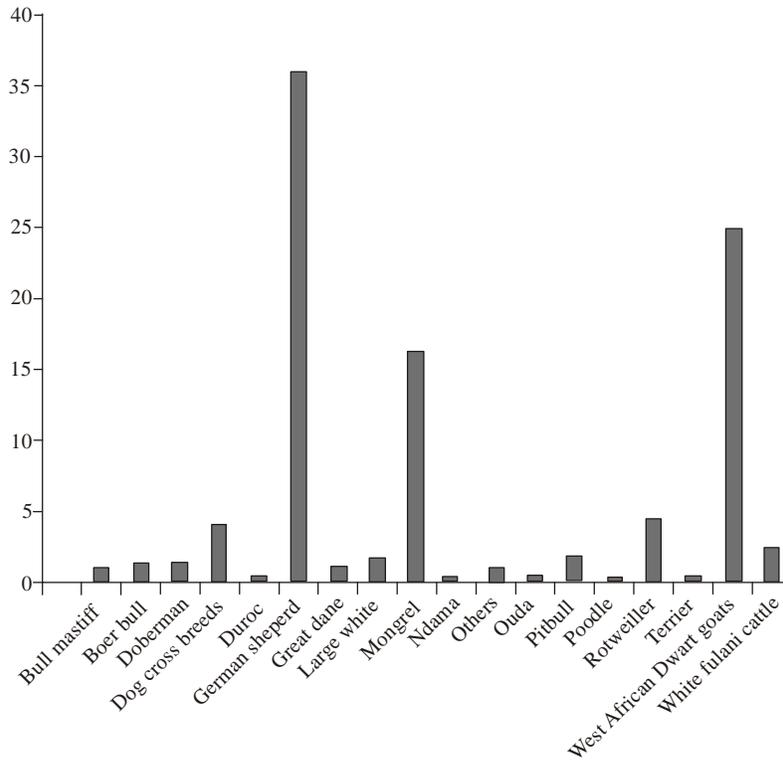


Fig. 2: Distribution by breed

Table 2: Distribution by condition (Cases from 1 to 3%)

Reproductive Condition	Frequency	Percentage (%)
Agalactia	17	1.48
Infertility	28	2.44
Neonatal death	15	1.31
Paraphimosis	13	1.13
Placenta retention	21	1.83
Post parturient septicemia /fever/paresis	24	2.09
Prostatitis	12	1.05
Pyometra	16	1.39
Scrotal dermatitis	17	1.48
Vaginal prolapsed	13	1.13
Vulvovaginitis	16	1.39
Total	192	16.72

Table 3: Distribution by condition (Cases >3%)

Reproductive Condition	Frequency	Percentage (%)
Abortion	56	4.88
Dystocia	124	10.8
Estrus detection	81	7.06
Mastitis	112	9.76
Metritis	91	7.93
Orchidectomy	43	3.75
Orchitis	37	3.22
Pregnancy diagnosis	112	9.76
Pseudopregnancy	36	3.14
Transmissible venereal tumor	108	9.41
Total	1800	69.69

DISCUSSION

Many of the diseases affecting animals do have some levels of effects on their reproductive health. Subsequently, the several reproductive conditions documented in these report are the reproductive aspect of the several clinical cases which are presented at the Veterinary Teaching Hospital, University of Ibadan. However, some conditions of very high frequency such as

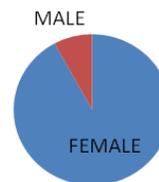


Fig. 3: Distribution by sex

dystocia and pregnancy diagnosis were made common by improper managemental practices. These include cross breeding animal breeds of different sizes which sometimes results in relative fetal oversize and dystocia. Inadequate breeding soundness examination, insensitive estrus detection, Poor nutrition and animal management are part of the causes for the increased frequency for pregnancy diagnosis (Oyeyemi *et al.*, 2009).

The major species encountered were the canine, caprine, ovine, bovine and the swine (in order of decreasing frequency). More than two-third of the presented cases were of canine species origin, most of which were exotic breeds (especially German shepherd). This is partly because these are the species of domestic animals mostly raised in the region (south-western part of Nigeria) and partly because the exotic breeds are usually kept by people that are economically above average. Pet owners care for these exotic breeds not only because of the high price value and the economic benefit attached to them but also because of their security function and the psychological ties they have with their owners. Puppies of some exotic dog breed cost about the price for adult cattle in Nigeria. Hence, general health management and optimum reproductive performances are given priority.

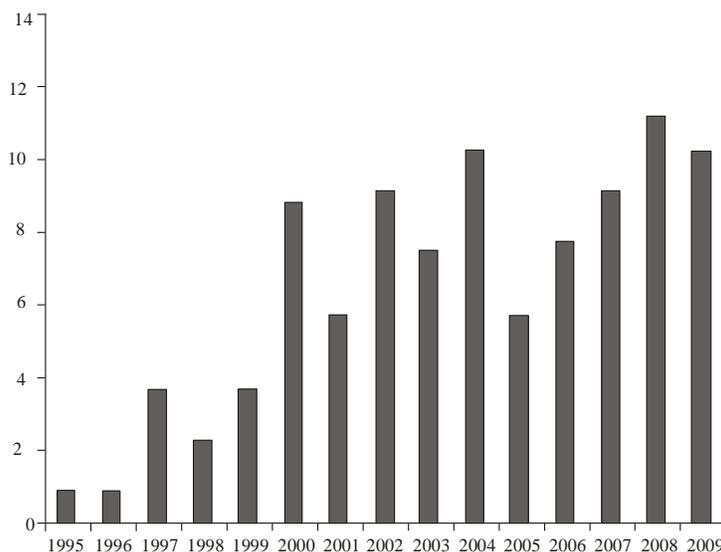


Fig. 4: Distribution by year (%)

Unlike in the canine species, farmers (usually below average economically) often prefer to slaughter or sell food animals with serious reproductive disorders. This accounts for the relatively lower frequency than expected in these species. However, the frequency of the swine species with reproductive conditions was comparatively much lower as a result of the aftermath of the African swine fever which destroyed several swine population in south-western Nigeria (Olugasa and Ijagbone, 2007).

The higher proportion of the female reproductive conditions in the presented cases over the years is suggestive of the major roles the female animals play in reproduction. This is at variance with previous report that reproductive conditions are more prevalent in the male (Singh *et al.*, 2009). While the male animals with certified breeding soundness are less monitored after mating, the female animals are closely monitored. Therefore, it was easier to observe and present female animals with anatomical abnormalities, infectious diseases, hormonal aberrations and managerial inadequacies that result in reproductive inconsistency. Consequently, they are presented for pregnancy diagnosis if no definite sign of pregnancy was observed; dystocia to avoid periparturient fetal or maternal loss; mastitis to restore optimal function of the mammary gland and metritis to eliminate the causative factors (Singh *et al.*, 2009).

The frequency of presented reproductive conditions generally increases in recent years. This is due to the increasing awareness of veterinary services in the country and the availability of seasoned theriogenologists to handle these conditions. Invariably, government policies that increases veterinary awareness and services as well as training and employment or empowerment of veterinarians especially theriogenologists will be

important steps towards food security and healthy society (Pappaioanou, 2004).

It can be concluded that the presentation and distribution of reproductive conditions in the veterinary teaching hospitals or referral centers such as the one in the University of Ibadan are dependent on clients' awareness of Veterinary services, economic status and managerial practices as well as patients' sex and socioeconomic potential.

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