

**ANALYSIS OF REPRODUCTIVE CASES HANDLED AT THE STATE
VETERINARY CLINIC MAIDUGURI, NIGERIA (1993 - 2005)**

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SUMMARY

A retrospective study of reproductive cases handled at the State Veterinary Clinic Maiduguri over a thirteen-year period was conducted. The frequency distributions of the cases were presented according to specie, sex, type of reproductive case, and season. Out of the 24,062 cases handled at the clinic, 980 (4.07%) were reproductive cases. Of these, 588 (60.0%), 292 (29.8%), 52 (5.31%), 41 (4.18%), cases affected sheep, goats, cattle, and dogs, respectively. The distribution of the cases based on disease conditions were, dystocia 234 (23.9%) pregnancy toxemia 150 (15.3%), mastitis 106 (10.8%) and orchitis 39 (3.9%). 104 (10.6%) of the cases were males and 876 (89.3%) were females. 516 (52.6%) of the cases occurred during the dry season while 464 (47.3%) occurred during the rainy season. From the analysis of the reproductive cases recorded during the period under review, the prevalence of reproductive diseases was commonest in small ruminants and females were mostly affected. The cases occurred most frequently, during the dry season.

KEY WORDS: Reproduction, analysis, cases, retrospective.

INTRODUCTION

Livestock production efficiency or productivity is largely dependent on reproductive performance. Several factors are known to affect the reproductive performance of farm animals, some of which are diseases, environment, poor husbandry practices and nutrition, especially inadequate protein intake (Smith and Somade, 1994; Kumidiaka, 1981).

Infertility, which may be of infectious or non-infectious causes, is a serious problem that

accounts for major economic losses in the livestock industry. It is a common cause for culling farm animals. Along with faulty management, disease factors accounts for most of the infertility and sterility in animals (Asdell, 1968).

Retrospective epidemiological studies provide useful information on disease patterns that could be used in prevention and policy formulation for future management of the prevalent diseases studied. In view of this, various studies have been conducted in

veterinary hospitals and clinics using past records. Retrospective case analyses were conducted at Ibadan (Idowu *et al.*, 1977; Ugochukwu and Ephraim, 1985), and Sokoto, (Ebbo *et al.*, 2003). Mohammed and Ahmed (1994-95) reviewed surgical cases handled at the University of Maiduguri Veterinary Teaching Hospital. However, no similar work has been conducted on the reproductive cases. This paper reports the findings on the analysis of reproductive cases encountered at the state veterinary clinic Maiduguri within a period of thirteen years.

MATERIALS AND METHODS

Data were obtained from clinical case records of the State Veterinary Clinic, Maiduguri, Nigeria. Reproductive cases handled at the clinic from January 1993 to December 2005 (thirteen year period) were studied and analysed with regard to specie, type of condition or disease and season. Percentage distribution were determined and presented in tabular form.

RESULTS

The specie most frequently presented for treatment at the clinic were sheep 11,823 (49.1%) followed by goats 5,940 (24.6%) and dogs 3,336 (13.8%), as shown in Table I. A total of 24,062 cases were presented to the clinic over a thirteen-year period, and of these, 980 (4.07%) were reproductive case. The percentage distribution of the reproductive cases according to species shows sheep with the highest number of cases of 588 (4.97%), followed by goats with 292 (4.92%), then cattle 52 (2.42%) (Table I).

Tables II and III, show the distribution of types of cases according to species and sex (female and male) respectively. Distribution of reproductive cases based on sex indicated that female cases predominate with 876 (89.38%) while male cases were 104 (10.61%). The most frequent cases were dystocia 234 (23.88%), pregnancy toxoemia 150 (15.31%), mastitis 106 (10.82%), and retained placenta, (8.88%).

Table IV shows higher number of cases (52.65%) in the dry season period (October to March) than the rainy season period (47.35%).

Discussion

This study provides preliminary information on the incidence and pattern of reproductive diseases prevalent around Maiduguri metropolis, Nigeria. The study revealed that the general frequency of disease was randomly distributed through out the year, but relatively more cases were encountered during the months of October to March (period of dry season). This may be associated with the lack of feed, a characteristic of the dry season, in addition to the adverse weather condition of the area during this period.

Similarly, the frequencies of reproductive diseases were randomly distributed among the species. However, there were more cases affecting small ruminants (sheep and goats). This can be explained since small ruminants are in absolute terms, more numerous and it is relatively cheaper to rear small ruminants within the metropolis where they are simply allowed to roam freely and scavenge for food. They are only confined for a short period during the rainy season. These findings were in conformity with the reports of Mohammed and Ahmed (1994-95).

The female reproductive cases predominate during the period of study. This is consistent with the fact that females are kept for longer periods in the herd for breeding or milk supply than the males. Also, the peculiarity of the female's vulnerability to gynaecological and obstetrical conditions could be a contributing factor. Twinning, poor feeding and management as a cause of dystocia, Arthur *et al* (1998), may be associated with the relatively high incidence of dystocia observed in the present study. Similarly, the high prevalence of pregnancy toxoemia in sheep may be associated with twinning, and poor feeding and management. The relationship between nutritional/management factors and the

TABLE I: Distribution of reproductive diseases according to specie and sex

Species	Male			Female			All Animals			
	Repd. cases	All cases	% of Repd. cases	Repd cases	All cases	% of Repd. cases	All Repd. cases	All cases	% of species	Total
Sheep	61	5,349	1.14	527	6,474	8.14	588	11,823	49.14	49.14
Goat	32	3,180	1.01	260	2,760	9.42	292	5,940	24.69	24.69
Cattle*	4	-	-	48	-	-	52	2,151	8.94	8.94
Dog	5	2,634	0.19	36	702	5.13	41	3,336	13.86	13.86
Cat*	-	-	-	4	-	-	4	338	1.40	1.40
Monkey*	-	-	-	-	-	-	-	119	0.49	0.49
Rabbit*	-	-	-	-	-	-	-	71	0.30	0.30
Horse	2	98	2.04	-	24	0	2	122	0.51	0.51
Antelope*	-	-	-	-	-	-	1	156	0.65	0.65
Pig	-	-	-	1	2	5.0	-	2	0.008	0.008
Lion	-	-	-	-	2	-	-	2	0.008	0.008
Crocodile	-	-	-	-	-	-	-	1	0.004	0.004
Porcupine	-	-	-	-	-	-	-	1	0.004	0.004
	104(10.6%)	11,261	4.38	876	9,964	27.69	980	24,062	100	100

* Sex of these animals were not available in the reviewed records

Table II: Distribution of reproductive diseases in female animals

Disease Condition	Species of Animal							Total	Percentage
	Cattle	Sheep	Goat	Dog	Cat	Horse	Pig		
Dystocia	12	125	97	-	-	-	-	234	26.7
Pregnancy toxemia	-	131	19	-	-	-	-	150	17.1
Mastitis	18	45	39	3	-	-	1	106	12.1
Retained placenta	2	61	24	-	-	-	-	87	9.9
Agalactia	4	38	17	-	-	-	-	59	6.8
Uterine prolapse	-	22	21	-	-	-	-	43	4.9
Abortion	5	18	14	5	-	-	-	42	4.8
Vaginal prolapse	-	22	7	2	-	-	-	31	3.5
Post-partum paresis	-	19	5	-	-	-	-	24	2.7
Post-partum bleeding	-	5	15	-	4	-	-	24	2.7
Post-partum infection/metritis	-	15	-	8	-	-	-	23	2.6
Teat obstruction	-	5	1	-	-	-	-	6	0.7
Milk fever	3	8	-	-	-	-	-	11	1.3
Vaginitis	-	3	1	3	-	-	-	7	0.8
Vaginal laceration	-	2	-	5	-	-	-	7	0.8
Transmissible venereal tumor	-	-	-	7	-	-	-	7	0.8
Brucellosis	4	1	-	-	-	-	-	5	0.7
Still birth	-	4	-	-	-	-	-	4	0.5
Mammary tumor	-	2	-	-	-	-	-	2	0.2
Pyometra	-	-	-	2	-	-	-	2	0.2
Teat injury	-	1	-	1	-	-	-	2	0.2
Total	48	527	260	36	4	0	1	876	100

Table III: Distribution of reproductive diseases in male

Disease	Species of Animal							Total	Percentage
	Cattle	Sheep	Goat	Dog	Cat	Horse	Pig		
Orchitis	3	25	7	4	-	-	-	39	37.5
Paraphimosis	-	18	7	-	-	2	-	27	25.9
Brucellosis	-	11	3	-	-	-	-	14	13.5
Phimosis	1	5	8	-	-	-	-	14	13.5
Balanitis	-	1	2	-	-	-	-	3	2.8
Urethral blockage	-	2	-	-	-	-	-	2	1.9
Urethritis	-	-	2	-	-	-	-	2	1.9
Hydrocoele	-	-	-	1	-	-	-	1	1.0
Scrotal laceration	-	-	1	-	-	-	-	1	1.0
Prepuccial laceration	-	1	-	-	-	-	-	1	1.0
Total	4	63	30	5	0	2	0	104	100.0

TABLE IV: Seasonal distribution of reproductive cases

Season	No of reproductive cases	Percentage (%)
Dry season (Oct-arch)	516	52.65
Rainy season (Apr-Sept)	464	47.35
Total	980	100

Occurrence of reproductive diseases has been described Kumidiaka, 1981; Morrow, 1986 and Arthur et al., 1998. Ebbo et al (2003) suggested that reproductive cases presented at the Usmanu Danfodiyo University, Sokoto constituted 6.56% of the total cases over a period of 10 years. Their findings were lower than the result of this study and canine cases predominate, unlike this present study. The total number of cases were however significantly lower than this

study (570 compared to 24,062 cases).

Williams *et al* (2000) reported that dystocia, post partum paresis and mastitis constituted 3.84%, 2.65% and 2.56% of the total number of cases respectively. These figures (a total of 9.05% for reproductive cases) are significantly higher than the results of this study probably due to the shorter period of study (2 years) and the lower total number of cases analysed (3204 cases compared to 26,024 cases).

CONCLUSION

From the analysis of the reproductive cases recorded during the study period, reproductive cases constitute 4.07% of the total number of cases presented at the hospital, and it is apparent that the cases of reproductive diseases are more common in small ruminants and occur mostly in females and most frequently, during the dry season.

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