A NOTE ON REPRODUCTIVE DISORDERS AMONG DAIRY ANIMALS IN GUJARAT

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Received 28-4-2011 Accepted 13-8-2011

ABSTRACT

A detailed gynecological examination of total 873 dairy animals (598 buffaloes & 275 cows) presented during infertility camps in the villages of Anand district was made. Of the total, 16.38 % buffaloes and 13.81 % cows were found pregnant, whereas 5 to 6 % buffaloes and cows were found to be in oestrus when presented as infertile. Among the infertility problems, the maximum occurrence was of infantile genitalia (17.73 %) in buffaloes and of anoestrus and suboestus in cows (14.5 & 14.9 %) and buffaloes (15.4 & 15.2 %). The incidence of repeat breeding and endometritis was also sizably high (11-13%). The incidence of cases of ovarian cysts, kinked cervix, cervicitis, metritis, pyometra, ovarobursal adhesion etc. was relatively high in cows than in buffaloes. The findings suggested the need of creating awareness among farmers about the oestrus detection, pregnancy diagnosis as well as proper feeding and management, so that the incidence of reportedly infertile animals can be reduced.

KEY WORDS : Infertility camps, Dairy animals, Reproductive failure

INTRODUCTION

Fertility is one of the key determinants of the lifetime performance of the cow and the buffalo. Reproductive disorders are the main hindrance towards the farm development programme. These disorders result in infertility or sterility, and cause great national economic loss in terms of reduced calf crop, milk yield and maintenance cost of infertile animals (Tomar and Tripathi, 1994; Tomar et al., 2002; Naidu and Babu Rao, 2004). Incidence varies from place to place and even between breeds, species, age and season. This study was aimed to know the real reproductive status of reportedly infertile dairy animals in different infertility camps organized in Anand district of Gujarat.

MATERIALS AND METHODS

Fertility camps for buffaloes and cows were organized during the months of February and March, 2009 under Innovative Approach for Agriculture Extension Activities by Village Adoption Scheme of Rastriya Krishi Vikash Yojana in different villages of Anand district of Gujarat. A total of 873 (buffaloes 598 and cows 275) animals presented in these camps constituted the material for this study. All these buffaloes and cows were examined clinically and by rectal palpation to know their reproductive status. Finally the per cent incidence of various physio-pathological conditions detected was worked out.

RESULTS AND DISCUSSION

The different types of reproductive disorders and physiological conditions diagnosed are presented in Table 1.

For an experienced clinician it is not difficult to distinguish the cyclic, functional or pathological changes and congenital defects of the reproductive tract in bovines on rectal palpation. In the present study, the incidence of anoestrus and suboestrus was identical both in cattle and buffaloes (each nearly 15 %). Moreover, 14 -16 % animals presented as infertile were found pregnant on per rectal palpation and nearly 5% cows and buffaloes were found in oestrus.

Table 1. Analysis of reportedly infertile dairy animals presented in clinical camps

Sr. No.	Reproductive status	Buffaloes		Cows		Overall	
		No.	%	No.	%	No.	%
1	Pregnancy	98	16.4	38	13.8	136	15.58
2	Estrus	34	5.7	15	5.5	49	5.61
3	Anoestrus	92	15.4	40	14.5	132	15.12
4	Suboestrus	91	15.2	41	14.9	132	15.12
5	Infantile genitalia	106	17.7	25	9.1	131	15.01
6	Repeat breeding syndrome	66	11.0	32	11.6	98	11.23
7	Endometritis	79	13.2	18	6.5	97	11.11
8	Metritis	10	1.7	10	3.6	20	2.29
9	Cervicitis	0.0	0.0	11	4.0	11	1.26
10	Kinked cervix	14	2.3	23	8.4	37	4.24
11	Follicular cyst	3.0	0.5	12	4.4	15	1.72
12	Luteal cyst	0.0	0.0	4.0	1.5	4.0	0.46
13	Abortion	1.0	0.2	1.0	0.4	2.0	0.23
14	Mucometra	0.0	0.0	2.0	0.7	2.0	0.23
15	Ovaro-bursal adhesions	1.0	0.2	0.0	0.0	1.0	0.11
16	Persistent corpus luteum	0.0	0.0	1.0	0.4	1.0	0.11
17	Others (Prolapse, ROP) cases	3.0	0.5	2.0	0.7	5.0	0.57
Total		598	100	275	100	873	100

In buffaloes, the incidence of infantile genitalia was the highest (17.73 %), while in cows it was 9.10%. The incidence of infantile genitalia recorded in heifers is higher than that recorded by Jyothi et al. (2003). This might be due to impaired nutrition. The occurrence of repeat breeding was however same in both the species (11 %). Endometritis accounted for 13.20 and 6.50% of buffaloes and cattle, respectively. Other minor disorders detected were relatively more in cows than buffaloes. These findings were in accordance with the previous report of Jyothi et al. (2003) and Patel et al. (2007). However the later authors recorded relatively lower incidence of infantile genitalia and suboestrus in dairy animals.

In order to breed regularly, the animal has to have functional ovaries, display estrus behaviour, mate, conceive, sustain the embryo through gestation, calve and resume estrous cyclicity and restore uterine functions after parturition. Each of these aspects of reproductive function can be affected by management, diseases and the genetic make up of the animal. The anatomical, infectious, nutritional and hormonal insufficiencies are the most common causes of anoestrus and repeat breeding (Arthur et al., 1996; Hafez and Hafez, 2000). Buffaloes are seasonally polyestrous animals. The maximum numbers of the buffaloes express heat during November and December months. Nutrition plays an important role in attaining the puberty and sexual maturity. Malnutrition was the main cause of infantile genitalia in these camps.

The findings suggested the need of creating awareness among animal owners about the oestrus detection, pregnancy diagnosis as well as proper feeding and management of dairy animals, so as to reduce the incidence of reportedly infertile animals as well as those really are found infertile, which in turn would improve the farmers' economy.

ACKNOWLEDGMENT

Authors are thankful to Director of Extension Education, AAU, Anand for funds and facilities provided for the clinical camps under RKVY Scheme.

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