Studies on Prevention and Management of Common Gynecological and Obstetrical Complications in Tharparkar Cattle

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Gynecological and obstetrical complications are the key determinants in the reproductive life time performance of a herd. These problems affect adversely the reproductive efficiency of individual and mostly they are acquired. A study on prevalence and management of common gynecological and obstetrical problems in (n=15) Tharparkar cattle of Livestock Research station, Beechwal were carried out. Highest prevalence was observed in 1st parity (66.66%) at 5 and 4 years of age and lowest in 2nd and 3rd parity. A close relationship of these problems was observed with each other. Proper and timely diagnosis and judicious use of medicines have been advocated for the management and amelioration of various pre calving and post calving problems in cattle.

Keywords: Gynecological, Obstetrical, Tharparkar, Pre-calving, Post-calving

Introduction

Impairment in the normal reproductive function results into the infertility and sterility leading to economic losses due to widening of dry period, reduced calvings and lactations during the life span of the animal (Agarwal S K and Tomer O S, 2003). Calving is a complex process. Many mechanisms affect the pre-calving and post-calving process, but none completely control it. The gynecological and obstetrical complications associated with parturition share common etiological factors, predispose to one another and, to a large extent, share common treatments. The aim of the present study was to evaluate the frequency and reasons of gynecological and obstetrical complications, and to assess their prevention and management in Tharparkar cattle.

Materials and Methods

A comprehensive study was carried out on fifteen cases of pre-calving and post-calving problems were handled in Tharparkar cattle aged between 4 to 5 years maintained at the Livestock Research Station, Beechwal during the period November 2011 to November, 2013. Pre-calving problems includes uterine torsion, dystocia, vaginal prolapse and post-calving includes...
RESULTS AND DISCUSSION

Pre-Calving Problems

Uterine torsion is defined as a convolution in the long axis of the uterus. The etiology of the condition is not well understood. The instability of the gravid uterus is certainly the most important predisposing factor in uterine torsions. It generally occurs during late 1st stage or early 2nd-stage labor (Arthur G H et al., 1996). Single case of uterine torsion in late gestation was diagnosed by manual vaginal exam, the vaginal wall was filed twisted or spiraled and further confirmed by rectal examination, the broad ligaments was filed crossed and the uterus was twisted. The degree of torsion was estimated based on the position of the fetus, the tightness of the spiral folds in the vagina, and the size of the opening between the vagina and the uterus. Uterine torsion were successfully corrected by the “plank the flank” method using a wood board to hold the uterus stationary while turning the cow over, effectively correcting the torsion and followed by the vaginal delivery of a live calf in anterior presentation. Uterine torsion is a common cause of dystocia in dairy cows. Multiparous cows are at a greater risk of uterine torsions than are heifers, and fetopelvic disproportion and carrying twins reduce the risk of torsion.

Dystocia The Feto-pelvic disproportion accounts for 90% or more of the assisted births at the producer level. Another 5% of dystocia are due to abnormal presentation, position, and posturing of the calf seen in two cases (deviation of head, elbow lock posture). The remaining 5% of dystocia is due to the cow herself and not the calf which was seen in one tharparkar cattle. This is in most instances uterine inertia due to fatigue, disease, or metabolic problems. Deviation of the head of the calf was seen in the one case of dystocia. The two front legs were presented and the head deviated to the side between the front legs. By grasping the muzzle head was raised and directed into the pelvis. Elbow lock posture was handled in one case of dystocia in tharparkar cattle in which both of the forelimbs were not extended as they come into the pelvic inlet, the partly flexed elbows was lock on the brim of the pelvis and cause elbow lock. The condition was easily corrected problem required repulsion of the body of the calf while simultaneous traction was exerted on the affected limb. There are many management practices that can be used to reduce the incidence of dystocia. Not all of them may be suitable to every ranching system. Breeding Management includes cull heifers with small pelvic areas before breeding starts. Select bulls to use on heifers based on the birth weight of the bull, not on his relative size. Expose heifers to the bull so they will start calving 30-45 days before the adult cows. Calving Management includes surveillance and calving assistance to be provided on a 24 h. basis if possible. Restricting the breeding season to 42-60 days will allow personnel to focus their attention to assist in calving for a short, but intense, period.

Vaginal prolapse The condition was sporadic and usually occurs prepartum, in late gestation, when the cow is under the influence of rising estrogen and experiencing relaxation of the tissues. The tissue around the birth canal becomes relaxed as the cow starts the last third of gestation, increased pressure in the abdominal cavity will push the vagina or the rectum out. This condition is more common in older cows but may occur in first calf heifers. The same condition was seen in two tharparkar cows during late gestation. The vaginal tissue was dry and necrotic. With help of epidural anaesthesia the tenesmus was reduced and which make replace easier and maintain in the correct position. When considering the prognosis of vaginal prolapsed, although rarely life
threatening, consider the chance of recurrence and inheritance and recommend culling. These need to be sutured to help reduce the risk of reoccurrence. There are numerous methods of fixation. Probably one of the most effective is the Bühner stitch. As well as Modified Caslick’s, pessaries, trusses are also used occasionally with varying degrees of success. The condition can be prevented by remove animals from the herd that develop this condition, don’t keep animals that have pre-calving prolapses and don’t allow cows to gain too much weight during the last trimester of pregnancy.

Post-Calving Problems

Uterine Prolapse This is an acute condition that is often associated with hypocalcaemia and may also follow use of great force in fetal extraction were handled in three tharparkar cows immediately after birth. The prognosis was relatively good as the uterus does not suffer too much trauma and is replaced properly with immediate effect under Epidural anaesthesia. Oxytocin was given after replacement. Further Intravenous calcium was given to treat milk fever first to overcome life threatening condition. In cows with uterine prolapse, posture of the animal at examination may be helpful to predict the prognosis and future breeding performance.

Retention of the fetal membranes (RFM) is one of the most common conditions occurring in animals following parturition. In normal parturition the placenta of the cow falls away within 3 to 8 h. following calving. If the placenta is retained longer than 8 to 12 h. the condition is considered pathological (Cuneo S P et al., 1993). The condition was seen commonly in five tharparkar cattle in their first parity. Retained placenta (RP) is due to the failure of the villi of the fetal cotyledons to separate from the crypts of the maternal caruncles. The incidence of RFM appears to be varying from area to area and from year to year and from breed to breed (Majeed A F et al., 2009). The incidence in cattle was ranged between 5.2 to 23.5% (Majeed A F et al., 1989). Various prophylactic and therapeutic approaches have been postulated by many workers ranging from no treatment to hormonal, chemotherapeutic and manual removal (Arthur G H, 1979).

Abortion Premature expulsion of the fetus (abortion) in mid gestation were observed in one tharparkar cattle in 1st parity may be due to microbiological, environmental and managemental factors responsible for it. Most cattle herds suffer an abortion rate of 1-2%. Seeing a single abortion, therefore, is not usually great cause for alarm. It is certainly best to separate the aborting dam from other animals and to clean up and dispose the aborted tissues. Abortion may also be caused by infectious disease agents. There are vaccines for several of these agents are more effective by a good vaccination program based on the diseases that are known to occur in area (Bagley Clell V, 1999).

CONCLUSION

Birth complications greatly influence the economics of the beef cattle industry, their causation, both genetic and non-genetic, should be investigated seriously. Despite of the low genetic variance, it is recommended that sires with a higher incidence of such complications in their offspring should not be used on heifers, and their use in breeding should overall be restricted. Proper supervision of the herd, obstetrical assistance, appropriate heifer rearing and mating at the correct weight and age to prevent the disproportion between the foetus size and pelvis dimension, as well as proper nutrition during pregnancy are systemic measure to control such complications in a herd.

REFERENCES

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