

FETAL MACERATION IN COW - CASE REPORT

Ingrid Flávia Ribeiro Cota

Students of the Veterinary Medicine course
– Faculdade Vértice – UNIVÉRTIX - Matipó

Leticia Tolledo Fernandes Silva

Students of the Veterinary Medicine course
– Faculdade Vértice – UNIVÉRTIX - Matipó

Vanessa Lopes Dias Queiroz de Castro

PhD in Veterinary Medicine - Professor
of the Veterinary Medicine course at the
institution: Faculdade Vértice – UNIVÉRTIX
- Matipó

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a female slaughtered in a refrigerator located in Muriaé-MG.

INTRODUCTION

Fetal maceration is due to infection caused by the protozoan: *Tritrichomonas foetus*, which is transmitted in the venereal form, directly interfering with bovine reproduction, causing abortion, infertility in the female, repetition of estrus and inflammatory processes in Organs genital organs (vaginitis, cervicitis, endometritis and pyometra) (PELLEGRIN et al., 2003). The male carries the protozoan in the preputial mucosa and transmits it to the female through natural mating. Despite being contaminated with *Tritrichomonas foetus*, he does not present symptoms, characterizing this infection of difficult control. Artificial insemination, materials which come into contact with the preputial or penile mucosa and semen are potential means of transmission (WAGNER et al., 1965, EAGLESOME & GARCIA 1997, LAGE & LEITE 2000) Cysteine proteinases secreted by T. fetus are the main virulence factor and their release occurs in the mucosa of the host's genital organ, leading to inflammation, cytotoxicity and apoptosis of epithelial cells (LUCAS et al., 2008), initially in the vagina, migrating to the cervical folds and, later, into the uterine lumen, where the protozoan will multiply, causing placentitis, placental detachment and embryonic death or abortion, due to inflammation or direct action (GUIMARAES, 2008).

Maceration is due to the action of the microorganism in the uterus, causing fetal death. The presence of fetid and purulent mucus due to pyometra and endometritis can be observed. Absorption of the fetal soft tissues occurs, leaving only the bones. If there is recovery of muscle tone in the uterus, there is the possibility of perforation (CARLTON et al., 1998). The objective of this work is to report a case of bovine fetal maceration, observed in

METHODOLOGY

The material was collected in a refrigerator located in the city of Muriaé, MG. During slaughter, an abnormality was observed in the uterus of a bovine female, which could be mistaken for a pregnancy. The entire genital organ was collected for research purposes, packaged and sent to the Animal Reproduction Laboratory of Faculdade Vértice (UNIVÉRTIX), located in the city of Matipó, MG.

RESULTS AND DISCUSSIONS

Upon arrival at the laboratory, a visual examination and manipulation of the organ were performed. Macroscopically, a unilateral asymmetry of the right uterine horn was observed, which initially could be mistaken for a pregnancy. Palpation of the female genital organ was performed, observing an increase in the volume of the right uterine horn, followed by a very firm consistency and crepitus. Soon after, a longitudinal section was performed at the base of the right uterine horn, where all internal content could be evaluated, which consisted of bone structures without soft tissue, consistent with a case of fetal maceration. The genital organ was fixed in 10% saline formaldehyde for conservation.

FINAL CONSIDERATIONS

At the end of the tests carried out at the Animal Reproduction laboratory of Faculdade Vértice (UNIVÉRTIX), the characteristics of the finding certify the presence of an abnormality called fetal bovine maceration, responsible for generating economic losses due to the negative influence on the fertility of the herd.

REFERENCES

- CARLTON, W.W.;MACGAVIN, M.D. Patologia veterinária especial de Thomson.2 ed. Porte Alegre: **Artmed**, p.554,1998.
- EAGLESOME M.D. & GARCIA M.M. Disease risks to animal health from artificial insemination with bovine semen. **Rev. Sci. Tech.** v.16, p.215-225, 1997.
- GUIMARÃES,A.M.**Tricomonosebovina**.Disponívelem:<<http://www.camposecarrer.com.br/reproducao/Tricomonosebovina.doc>>. Acesso em: 27 abr. 2008.
- LAGE A.P. & LEITE R.C. Campilobacteriose genital bovina (Vibriose). **Pecuária de Corte** v.10, p.50-54. 2000.
- LUCAS, J.J. Characterization of a cysteine protease from Tritrichomonas foetus that induces host-cell apoptosis. **Archives of Biochemistry and Biophysics**, v.477, p.239-243,2008.
- PELLEGRIN,A.O.;LEITER,C. Atualização sobre tricomonose genital bovina Corumbá: **Embrapa**,2003.
- WAGNER W.C., DUNN H.O. & VAN VLECK L.D. Incidence of Vibrio fetus in an A.I. stud. **Cornell Vet.** v. 55, p.209-220, 1965.