

ABSTRACT BOOK



ICAR2020+2

Bologna, Italy

19th International Congress
on Animal Reproduction
BOLOGNA (ITALY), 26th-30th JUNE 2022

CONTENTS

INVITATION

1

COMMITTEES

2

- Local Organising Committee
- Scientific Programme Committee
- International Advisory Board

ORAL COMMUNICATIONS

6

Monday, 27th June 2022

- SYMPOSIUM 1 O01 - O04
The nonconformist: conceptus-maternal communication in the dog
- SYMPOSIUM 2 O05 - O06
Devising new gonadotropins for the future... which strategies, which uses?
- SYMPOSIUM 3 O07 - O08
Cloning and genome editing
- SYMPOSIUM 4 O09 - O10
New aspects of corpus luteum regulation toward successful pregnancy
- WORKSHOP 5 O11 - O14
Improving livestock production: beyond genetic again

Tuesday, 28th June 2022

- SYMPOSIUM 5 O15 - O16
Reproduction in non-domestic and endangered species
- SYMPOSIUM 6 O17 - O20
Immune regulation of oviduct/uterine function
- SYMPOSIUM 7 O21 - O23
Effects of heat stress on reproduction: from conception to lactation
- SYMPOSIUM 8 O24 - O27
Cryopreservation: freezing, vitrification, freezing drying

Wednesday, 29th June 2022

- SYMPOSIUM 9 O28 - O29
New approaches in buffalo reproductive management
- SYMPOSIUM 11 O30 - O31
New imaging systems for assessing gamete and embryo quality
- SYMPOSIUM 12 O32 - O33
Novel insights on uterine immunology during pregnancy and disease

T118 DEPENDENCE OF THE ACTIVITY OF NUCLEOLI ON THE NUMBER OF LAMBS IN THE LITTER

B. Iolchiev¹, P. Klenovitskiy¹, N. Volkova¹

¹Federal Research Center for Animal Husbandry Named after Academy Member L.K. Ernst

BACKGROUND-AIM

NOR (nucleolar organizer region) can serve as a marker for characterizing the physiological state of the organism. The aim of our study was to study the relationship of NOR parameters in sheep depending on the number of lambs in the litter.

METHODS

The study protocol was approved by the Animal Care and Use Committee of the L. K. Ernst in accordance with the guidance of the Council for the control of animal experiments. The object of the study was three groups of ewes after lambing before weaning of lambs: group I with one lamb (n = 50); Group II with double (n = 70) and group III with triple (n = 38). Blood was taken from animals from a vein. Lymphocytes were isolated from blood using the ficoll-urographin density gradient sedimentation method. The preparations were fixed with methyl alcohol and stained with a 50% solution of silver nitrate according to the Havell-Blake technique. The resulting slides were examined using a Nikon Eclipse Ni microscope equipped with a DS-Qi2 digital video camera. The measurements and processing of the obtained images were carried out using the NIS-Elements BR4.30 software. Microsoft Excel-2010 software was used to process the obtained primary digital materials, and the SPSS v.23.0 software package was used for statistical processing.

RESULTS

The number of nucleoli in sheep with one lamb averaged 2.38 ± 0.18 , the average area of nucleoli is 68.2 ± 2.73 pixel. In sheep with double lambs, 3.07 ± 0.23 , the average area of nucleoli is 72.6 ± 6.54 in ewes with triplets during lactation, the content of nucleoli in intact lymphocytes averaged 4.76 ± 0.24 ; the average area of nucleoli in this group was 102.8 ± 7.81 pixel. The difference between the groups in the number of nucleoli in intact lymphocytes is statistically significant, the largest number of nucleoli is observed in queens with triplets, the number of nucleoli in their lymphocytes is twice that in queens that brought and fed one lamb ($p < 0.001$) and 55% more than from the queens who brought and fed two lambs.

CONCLUSIONS

The results of our research show that the number of nucleoli in intact lymphocytes of ewes during lactation is interrelated with the level of load on the body.

T119 EFFECT OF SPONGE TREATMENT DURATION (14 VS 15 DAYS) DURING AN ESTROUS SYNCHRONIZATION PROTOCOL USING LOW DOSE OF ECG (200 IU) IN SHEEP

J.E. Jaeschke^{1,2}, M.M. Bruno Galarraga³, M. Cueto³, G. Fernandez³, A. Correa¹, J.M. Rodríguez Pésico², A. Gibbons³

¹Biogenesis Bago SA, Argentina.

²Biogenesis Bago SA, Medio Oriente.

³Laboratorio de reproducción de rumiantes menores. INTA EEA Bariloche.

BACKGROUND-AIM

Estrous synchronization protocol for fix-timed artificial insemination (FTAI) in small ruminants usually requires the sponge to remain in the sheep for 12-14 days. Sometimes there is a need to split the AI tasks into two different days (i.e., large flocks, weather, etc.). Also, eCG effect may be affected by progestin length. The objective was to compare the effect of sponge-treatment duration (14 vs 15 days) on pregnancy, during a FTAI protocol combined with a low dose of eCG.

METHODS

The study was done in 2021, during the reproductive season, in INTA Bariloche, Argentina, were 223 Merino Sheep were enrolled, with an average BCS of 2.2 (scale 1-5). Sheep were kept in pasture. All the animals were randomly assigned to received (Day 0) an intravaginal sponge of 60 mg of Medroxyprogesterone (Progespon, Zoetis) for 14 (G14d; n=113) or 15 days (G15d; n=110). At sponge removal, all animals received 200 IU of eCG (Ecegon, Biogenesis Bago) IM. FTAI was done 52-56 hours after the sponge removal by intracervical insemination using fresh semen. The semen was collected with artificial vagina and the progressive motility was evaluated to approve its use (> 80%). Pregnancy diagnosis was performed 35 days after AI by ultrasound. Data was analyzed with R Commander (R Core Team, 2016).

RESULTS

The global pregnancy rate of the flock was of 65.9%, where Group 14 days (G14d) obtained 63.7% (72/113) while G15d resulted in 68.2% (75/110) of pregnancy. The results did not show statistical differences between groups ($P=0.48$).

CONCLUSIONS

Results suggest that we have some flexibility in the implementation of synchronization protocols that combine sponge with 200IU of eCG, maintaining good reproductive achievements.