DIARRHEAL CASE IN SEMINTENSIVE PRODUCTION OF NEW ZEALAND WHITE (NZW) RABBIT IN MEXICO CITY. "CHARACTERIZATION OF MACROSCOPIC AND MICROSCOPIC LESIONS".

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ABSTRACT

The results were analyzed from 25 cases with clinical signs of diarrhea. The results reported, signs at the moment of necropsy, macroscopic lesions and microscopic morphological diagnosis, the results from each case were contained in agreement of these three characteristics and the frequency was taken as percentage of presentation from different signs and lesions.

Key words: diarrhea, lesions, frequency.

INTRODUCTION

The rabbit production in Mexico has acquired in the last years a productive and technological development being a source of income for the producers, for that reason they look for technical and methods that favor its biggest production.

A problem that have faced the producers in their farms with more frequency have been the diarrheas like first cause of death, besides respiratory cases that together, these are factors that affect the production severely and the economy of the producers.

European Countries as: France, Portugal, Belgium, Holland, Germany, Hungary, Italy and Spain, have been affected by the "Epizootic Enterocolitis of the Rabbit" (BARRAL *et al.*, 1998, LICOIS *et al.* 1998, VANDEKERCHOVE *et al.* 1998) and at the moment the problem is controlled with nutritious, sanitary, and handling measures, recognizing that hadn't a catastrophic economic effect. Unfortunately has not been found the cause that unchains this illness and so far continues making studies focused to solve the problem.

The present studio has as purpose the characterization of signs and lesions macro and microscopic of the animals that were affected by diarrheas signs and that therefore they need a standardization of cases to locate the bigger incidence in the farm of The Teaching, Investigation and Extension in Poultry Production Center (CEIEPA) of the Autonomous National University of Mexico (UNAM).

MATERIAL AND METHODS

The cases were taken since the 15th July at the 22nd July, in a farm of natural environment, walls of concrete, floors of cement, roofs of sheet of asbestos and windows with mesh protector. There were in the moment of the outbreak: 102 does; 10 buck, 56 replacements, 466 suckling period and 279 fryers in cages (913 rabbits in total) American type in flack deck accommodation.

In the farm 30% of animals were observed with abdominal distension and other 30% with diarrheas of different types, during the outbreak there were 66 dead fryers that represented 23.6% of mortality all with diarrheal sinology.

From the outbreak were taken 25 life animals with diarrheal sinology for its pathological analysis in the Department of Pathology of the UNAM. Each case was grouped in 3 different categories: Signs to the moment of necropsy, macroscopic lesions and microscopic morphological diagnosis; later the frequency was analyzed for each sign and lesion, giving the percentage as result.

The most important signs from 25 cases were:

- Apathy.
- Anal area spotted by grounds of variable color.
- Liquid diarrhea in some mash cases and with presence of snot.
- Abdominal distension.
- Abnormal positions rests.
- Smelly grounds.

Image I: Abdominal distension, diarrhea in anal area and necropsy

RESULTS AND DISCUSSION

Characteristics presented at the moment of the necropsy.

The characteristics were taken at the moment of the necropsy and among the most important were: 48% of the total of animal cases presented good corporal condition, 44% pale mucosas, 32% with diarrhea mash present in the anal area, 28% with regular corporal condition the same for green liquid diarrhea and fetid mash present in anal area, only 12% of the animals presented poor corporal condition, 8% abdominal distention and other 8% presented nasal secretion among other signs. The characteristics with more frequency are in the figure 2.

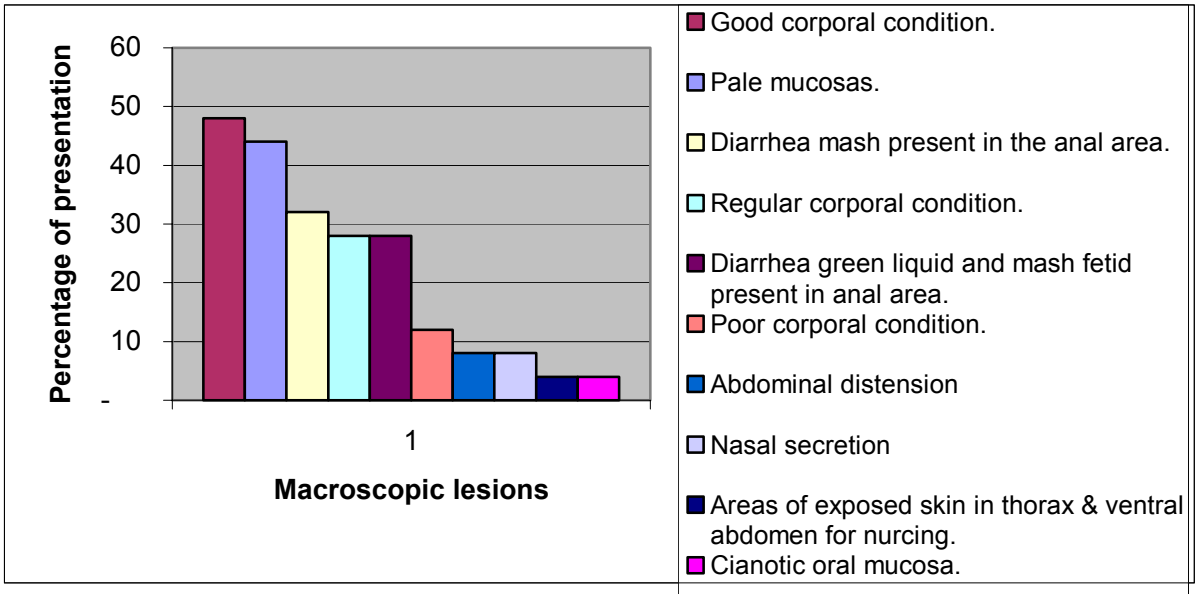

Figure 1. Frequency of characteristics presented at the moment of the necropsy.

15 Cases of 25 (equivalent to 60 %), presented anal area spotted with diarrhea of the follow types, with 36% had mash diarrhea, 20% presented mixed diarrhea (mash and liquid), 4% liquid diarrhea.

Frequency of macroscopic lesions found in diarrhea cases.

64% Of cases presented inside to the intestinal mucosa contained white-yellowish color semi-liquid, 48% presented hepatic congestion, 40% of cases presented lung congestion, 36% showed spleen congestion, 32% showed renal congestion medulla-cortical, another 32% presented congestion in cerebral bark and leptomeningeal edema, 16% showed an increase of size in the heart. In changes with smaller presentation are ascitis, abdominal distension for gas, lesions in windpipe, stomach etc., the figure 3 present the most frequent macroscopic lesions.

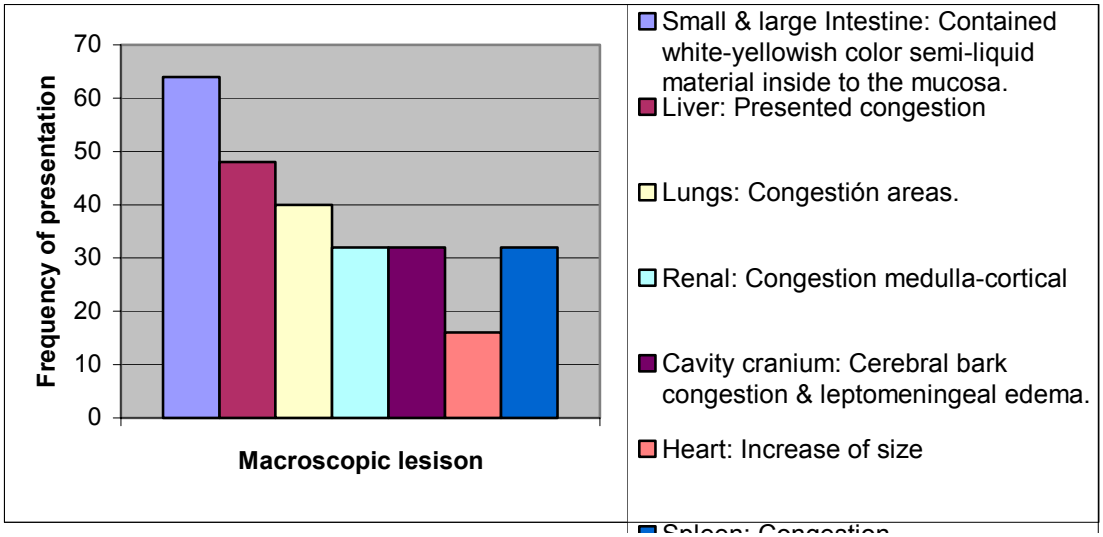

Figure 3. Frequency of macroscopic lesions

Frequency of microscopic diagnoses.

Among the most important lesions for their frequency in the realized microscopic diagnosis to the 25 cases were 48% interstitial pneumonia, 44% multifocal necrosis interstitial tubular; 40% presented hepatitis lymphocytic, 32% atrophic enteritis with hyperplasia of globet cells and 24% necrotic enteritis with hyperplasia of globet cells, 16% presents Multifocal degenerative miophaty of myocardium. Among other microscopic diagnoses we can mention spleen atrophic, encephalitis, gliosis, satelitosis; besides serious fatty degeneration of the liver in 4%. The most important diagnoses are in the figure 4.

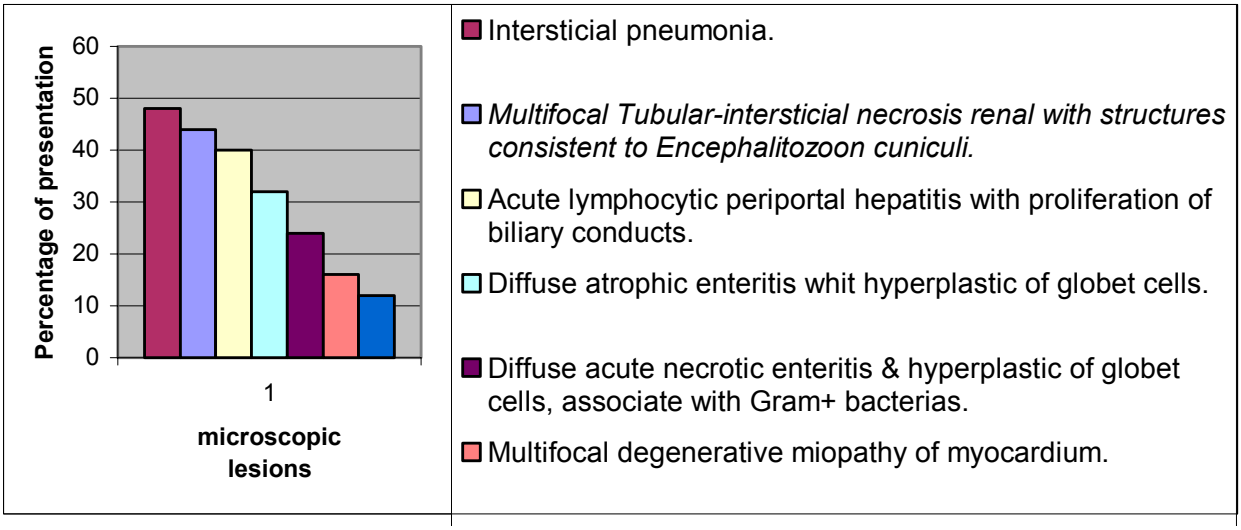

Figure 4. Frequency of microscopic diagnoses.

CONCLUSION

Is not possible to make a definitive diagnosis from the lesions and the signs presented in this analysis because they are not uniform in 100% of animals. It is necessary to make more tests with more number of samples, to arrive to the causal agent or the causal agents it will be necessary to make bacteriological, viral, electron microscopy and parasitological tests.

Taking of reference, the works of Barral E., Vandekerchove D. and Licois D., (7th WRC) we suggest the specific study of the animals that present signs suggesters to Epizootic Enterocolitis of the Rabbit.

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