

## CONTAGIOUS EQUINE METRITIS IN MARES

Alejandro Cordova Izquierdo<sup>1\*</sup>, Ramiro Muñoz Mednoza<sup>1</sup>, José Félix Pérez Gutiérrez<sup>2</sup>

<sup>1</sup>Departamento de Produccion Agricola y Animal. Universidad Autonoma Metropolitana Unidad Xochimilco. Calz. Del Hueso 1100 Col. Villa Quietud C.P. 04960, México, D.F. \*aci57@prodigy.net.mx

<sup>2</sup>Departamento de Medicina y Sanidad. Facultad de Veterinaria. Universidad Complutense. 28040, Madrid, España.

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### Introduction

In equine, the metritis is, a pathological condition very frequently, as the equine contagious metritis, caused by the bacteria *Taylorella equigenitalis*, of which Mexico is free. In the entire world, they are carried out rigorous controls, in such a way that you can consider like a sporadic one. In Mexico, one of the control measures implemented by the General Address of Animal Health is the one of demanding the realization of a bacteriological sampling of all equines bigger than 12 months of age that it is carried to the country. This sampling should be seriate and be made in 3 occasions with a minimum interval of 7 days. The obtaining of the samples should be certified on the part of a member of the sanitary authorities of the town.

The contagious equine metritis is a sharp and highly contagious venereal illness of the horses, it affects seriously on the reproduction and the fertility of the mares.

The *T. equigenitalis* is a bacillus gram-negative medical anaerobe; it is positive to the oxidize, catalasa and phosphates actions. It was firstly detected in the United Kingdom and Ireland in the year of 1977 and later on in the European continent, United States and Australia. In Holland, it was recognized for the first time in the year of 1986 (Widders et al., 1995; Parlevliet et al., 1997). This bacteria grow slowly and the cultivation in agar of chocolate with a rich base of Eugon and an atmosphere of 37 C with 5 to 10% of CO<sub>2</sub> is possible; it is not possible their ailment in agar McConkey. They are appearing in the end to the surface of the uterine endometrio and they are causing endometritis and sterility in the mares (Parlevliet et al., 1997; Summerfield and Watson, 1998). The *T. equigenitalis* resides exclusively in the genital tract of the equine ones (Katz et al., 2000).

The transmission of this suffering is essentially venereal, although the mechanical transmission by means of fomites (vaginal speculums, gloves of rectal examination, articles for the insemination and the inadequate hygienic handling of the genital organs of mares and sires) and it is possible that in the equines it can cause temporary infertilidad due to the

metritis, the early embryonic loss, miscarry or the birth of sick and weak ponies which die soon after their birth. Though the sire clinical signs don't exist, the *T. equigenitalis* can appear in the area of the penis, in the esmegma, prepuccial and urethral. The infection in the mares causes temporary infertilidad and occasionally abortion starting from the 60 days of gestation (Watson and Stokes, 1990).

The objective of this work was to diagnose contagious equine metritis in mares previously tried with antibiotic.

### Material and methods

The work was carried out to the south of the city from Mexico to 2 839 msnm with a temperature average of 11.4°C and an annual total precipitation of 1 174.2 mm. The stable it has a stud of the Spanish race with a total of 29 animals. The reproductive parameters were analyzed (I annex 1). Analyzing the obtained data of the reproductive parameters of one year, there were observing 13.79% animals with metritis. In four mares in a center of Animal Health there were Contagious Equine Metritis diagnosed.

They took three smears (of the area grave clitorises and the breasts clitorises, previous laundry of the perineum) for each one of the mares every seven days. Each one of the smears for separate, they were placed in the means of Amies with coal, in a coolant one for their transportation to the laboratory (maximum 36 hours after their collection), avoiding the presence of direct light toward the means of transport, since the bacteria is photosensitive. The means that was used for the isolation was agar chocolate Eugon with 10% of blood of equine without dextrose. The siembra badges, once inoculated, they were incubated in invested position, with the means up and an atmosphere of 37 C and of 5 to 10% during 48 and 72 hours. The results of bacterial growth were valued and they were analyzed by means of descriptive statistical analysis.

### Results

In the table 1, the results of the bacteriological diagnosis are presented.

Table 1. Diagnostic bacteriological of the four mares.

MARE	<i>T.equigenitalis</i>	BACTERIOLOGICAL			
		<i>Bacillus sp.</i>	<i>Staphilococcus Epidermidis</i>	<i>Corynebacteriu m sp.</i>	Yeasts
1	-	+	-	-	-
2	-	+	-	-	-
3	-	-	+	+	-
4	-	+	-	-	+

## Discussion

The analysis of the reproductive parameters of the stud, showed a metritis incidence, being diagnosed presuncionalmente Contagious Equine Metritis, caused by *T. equigenitalis*, for the presented signs, deciding to carry out the diagnosis to obtain an integral valuation, so much stops *T. equigenitalis*, as a general bacteriological exam.

The prospective results for the presence of *T. equigenitalis* in the cultivations were negative, which were due to that the mares had already been treated with antibiotics, previous to the study.

**I annex 1. Reproductive registrations of the mares**

MARE	S/C	D/C	% total/gest	%Edema	% IA	%Va	%Va/p	%m	%pio	%Ab	%An
1	1	4	+	+		-	-	-	-	-	-
2	5	13	+	+	2	-	-	-	-	-	-
3	2	6	+	+		-	-	-	-	-	-
4	4	9	+	+		-	-	-	-	-	-
5	5	12	+	+	2	-	-	-	-	+	-
6	7	18	-	+		+	+	+	-	-	-
7	1	3	+	+		-	-	-	+	-	-
8	5	11	-	+		+	+	+	-	-	-
9	3	6	+	+		-	-	-	-	-	-
10	3	5	+	+	2	-	-	-	-	-	-
11	4	9	-	+	3	+	+	+	+	-	-
12	3	7	+	+		-	-	-	-	-	-
13	1	2	+	+		-	-	-	-	-	-
14	3	6	+	+		-	-	-	-	+	-
15	3	8	+	+		-	-	-	-	-	-
16	1	5	+	+		-	-	-	-	-	-
17	4	11	+	+		-	-	+	-	+	-
18	3	6	+	+	2	-	-	-	-	-	-
19	3	9	+	+		-	-	-	-	-	-
20	2	7	+	+		-	-	-	-	-	-
21	2	7	+	+		-	-	-	-	-	-
22	2	6	+	+		-	-	-	-	+	-
23	1	2	+	+		-	-	-	-	-	-
24	2	4	-	+		+	+	-	-	-	-
25	1	2	-	+		+	+	-	-	-	-
26	2	7	+	+		-	-	-	-	-	-
27	1	1	+	+		-	-	-	-	-	-
28	2	2	+	+		-	-	-	-	-	-
29	2	2	-	+		+	+	-	-	-	-
X	2.6	6.6	79.30	100	0.3	20.68	20.68	13.79	6.89	13.79	0

S/C = services for conception; D/C = you mount for conception; % total/gest =% of the gestantes total; % edema =% of edemas; % IA =% of artificial insemination; % goes = empty%; % Va/p =% empty problem; % Rp =% lecturers; % m =% metritis; pious% =% piometra; % Ab =% abortion; % An =% anéstricas.

In spite of the obtained results, it was suspected the presence of *T. equigenitalis*, for the presented signs. A differential diagnosis should be made with other illnesses that present similar signs, as they can be the viral illnesses. For later studies the sampling is recommended

as much in males as in recently entered females and without treatment, since this can disguise to the results.

## References

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