Transplacental transmission of equine piroplasmosis

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presented to all clinics included in the study during the study period. The relationship between selected epidemiological factors and outcome was analysed statistically using a Pearson Chi-Square Test with a significance level of $p < 0.05$. A correspondence analysis was conducted to display in a bi-plot any structure hidden in the multivariate setting of the data.

Results: 571 cases met the inclusion criteria. The overall prevalence of tetanus was 0.15% (571 of 64,713). The distribution of cases is significantly lower during the summer compared to the other seasons ($p = 0.003$). Tetanus was more frequent in animals under 6 years old ($p = 0.05$, 309 of 571) and mortality rate was higher in animals under 6 years old ($p = 0.006$, 234 of 309), and in autumn ($p = 0.04$). Similarly, mortality rate was higher in animals presenting with wounds in the limb compared to other wound locations ($p = 0.005$).

Main limitations: Retrospective multicentre study.

Conclusions: Age, season and wound location are significantly related to tetanus survival in working equids. This should be considered by clinicians when evaluating, treating or advising on the prognosis of tetanus cases. This is the largest sample size of tetanus studied in equids and provides useful data for veterinarians and researchers.

Ethical animal research: Research ethics committee oversight not required by this congress: retrospective data collection.

Informed consent: Explicit owner consent not stated.

Competing interests: None declared.

Funding: No external funding.

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Background: The occurrence of transplacental transmission of *Theileria equi* and *Babesia caballi* in equids is rarely addressed but was described in other animal species with other piroplasmids.

Objectives: Estimation of the frequency of transplacental transmission of piroplasmosis aetiologic agents from asymptomatic infected broodmares to their neonatal foals.

Study design: Cross-sectional observational study.

Methods: Included mares spent more than 6 months/year on pasture, were in the last trimester of gestation and with planned foaling in a box/paddock. Foals were included if less than 72 h of age and born in a box/paddock. Blood smears were evaluated and nested PCR (nPCR) were performed on all collected samples. nPCR of foals born from piroplasmosis carrier mares were performed in triplicate.

Results: Seventy-one mares and their foals were included. nPCR revealed that 25 mares (35.2%) were positive for *T. equi*, and 2 mares (2.8%) for *B. caballi*. Two foals from *T. equi* carrier mares were positive for *T. equi* (8%, 90% CI [4.7%–11.3%]), and none positive for *B. caballi*. None of the infected mares and foals showed symptoms of equine piroplasmosis at the time of sampling. In 20% of *T. equi* nPCR positive mares, *T. equi* was detected on blood smears with very low parasitaemia (<0.1%) and in none *B. caballi*. In both *T. equi* infected foals, blood smear evaluation revealed presence of *T. equi*.

Main limitations: Small sample size and low prevalence of piroplasmosis in mares. No complete blood count or biochemistry were performed to assess anaemia.

Conclusions: These preliminary results show a low prevalence (8%) of transmission of *T. equi* from positive mares to their foals. Transmission of *B. caballi* was not identified. Consequences of in utero infection of foals and antibody production have yet to be further evaluated.

Ethical animal research: The Animal Research Ethics Committee approved the study protocol (No. 2211).

Informed consent: Consent was given by owners or their representatives for the inclusion of their horses.

Competing interests: None declared.

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50 | Equid trypanosomiasis: A systematic review of the global impact of a neglected veterinary disease: Prevalence, morbidity and mortality

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Background: Equid trypanosomiasis is a neglected protozoal disease.

Objectives: 1. What is the global geographical distribution and prevalence of equid trypanosomiasis? For equids in low and middle income countries (LMICs) is trypanosomiasis more prevalent than those in higher income countries (HIC)? 2. In equids is trypanosomiasis infection a significant contributor to global morbidity and mortality?

Study design: Systematic review (preregistered).

Methods: Studies were identified that described naturally occurring equid trypanosomiasis worldwide following 'Preferred Reporting Items for Systematic Reviews and Meta-analyses' using eight international databases (January 1980-July 2022). Equid population data for each country was extracted. Estimates of point prevalence were made (individual country; global). Country exposure risk to equids (negligible/low/medium/high) and clinical data (*Trypanosoma* sp.; outbreak (O) vs. endemic (E) disease) were categorised.

Results: Study quality was assessed (Q1: $n = 149$ manuscripts, median grade 'medium' (3/8 (range 2–6)); Q2: $n = 46$ 'moderate'