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EVALUATION OF THE OCULAR CONJUNCTIVAL MICROBIOTA OF HORSES LIVING IN THE CITY OF SÃO PAULO AND THEIR SENSITIVITY TO ANTIMICROBIALS FOR OPHTHALMIC USE

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Abstract: Knowledge of the ocular microbiota and its sensitivity to antibiotics used in veterinary medical routine is essential in the appropriate choice for the rapid solution of eye diseases, such as corneal ulcers, which, when not treated appropriately and quickly, can trigger loss of vision. Horses have anatomical and behavioral peculiarities that, combined with environmental conditions, can lead to greater risks of trauma and contamination.
Keywords: corneal ulcer, antibiotics, sensitivity

GOAL

The objective of this work was to identify the conjunctival microbiota of healthy horses and their respective sensitivity to the antibiotics Tobramycin, Ciprofloxacin, Moxifloxacin, Gentamicin, Chloramphenicol and Oxacillin.

MATERIALS AND METHOD

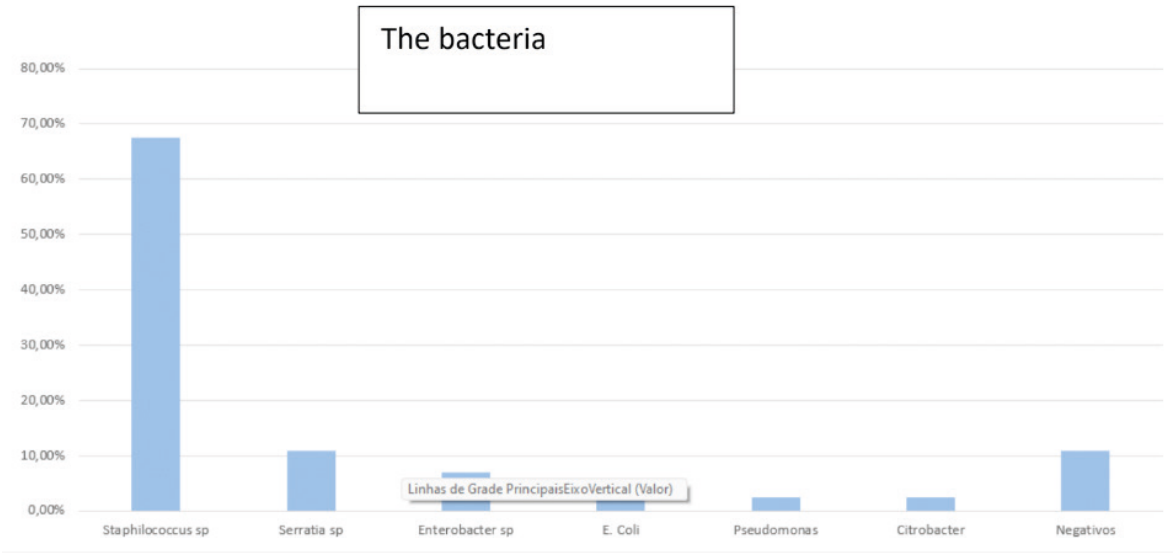
204 eyes of 102 horses from the 9 de Julho Mounted Police Regiment, PMESP, were evaluated, all healthy, with no recent history of systemic or ocular disease. The material was collected with a sterile swab from the bilateral conjunctival fornix, subsequently seeded on blood and Macconkey agar for selectivity of bacterial growth in gram positive and negative, bacterial differentiation using EPMMIlli with citrate and antibiogram with the mentioned medications.

RESULTS

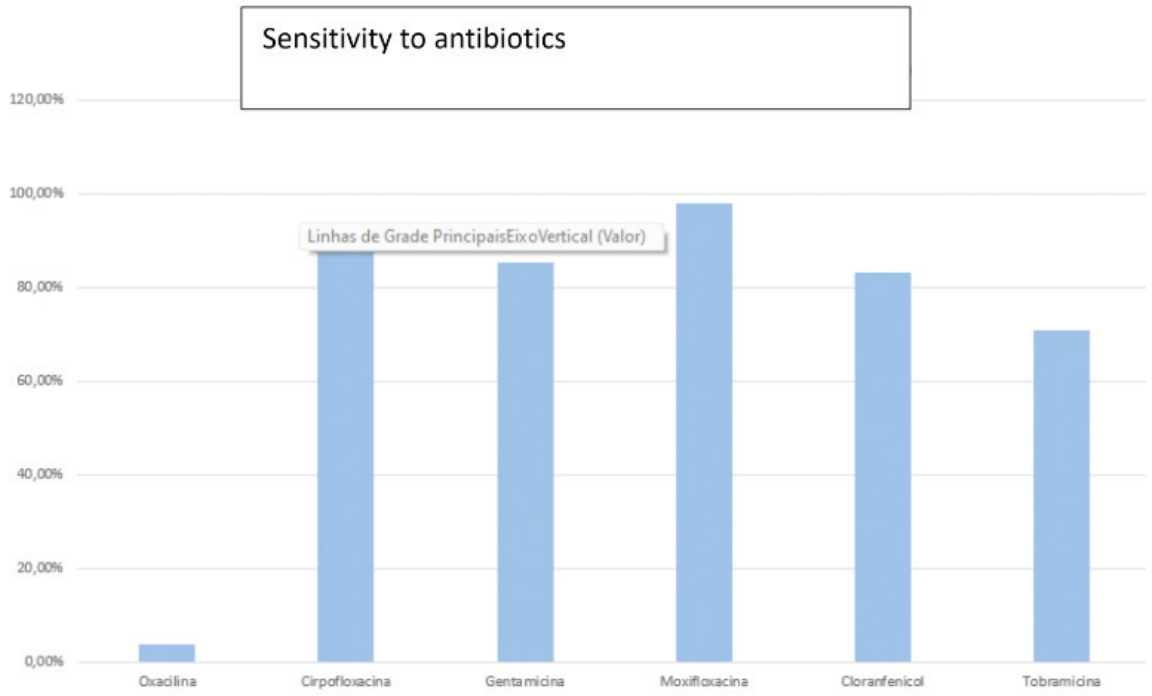
The bacteria isolated were Staphilocccus sp (67.6%), Serratia sp (10.8%), Enteroacter sp (6.9%), E. coli (3.9%), Pseuomonas (1%), Citrobacter sp (0.5%) and negative 10.9%. Sensitivity to antibiotics were Oxacillinin 3.8%, Ciprofloxacin 87.6%, Gentamicin, 85.4%, Moxifloxacin 97.9%, Chloramphenicol 83.3% and Tobramycin 70.8%.

CONCLUSION

In view of the results obtained, great resistance to oxacillin was observed due to the widespread use of medications in this class, such as penicillins. In this location, horses are often treated with penicillin and chloramphenicol-based ophthalmic ointments and tobramycin-based eye drops. Knowledge of the microbiota as well as antimicrobial sensitivities is of important value for choosing the most appropriate medication as the first choice for more serious cases, avoiding worsening of the disease such as melting ulcers and corneal perforations.



Graph 1: bacteria isolated in cultures from the conjunctiva of horses



Graph 2: sensitivity of bacteria to the antibiotics tested.