

The survey of *Pseudomonas aeruginosa* infection of reproduction system of mares in both Suburb of Tehran and Alborz provinces of Iran

Massoud Talebkhan Garoussi^{1*}, Mostafa Soleymani², Taghi Zahraei Salehi³
and Faramarz Gharagozloo¹

¹ Professor, Department of Theriogenology, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran

² DVM Graduated, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran

³ Professor, Department of Microbiology, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran

Received: 28.08.2020

Accepted: 08.12.2020

Abstract

The objective of this survey was to evaluate the infection of *P. aeruginosa* within the mare population including horse riding clubs, clinical cases and different centers which keep horses in both suburbs of Tehran and Alborz provinces of Iran. Totally, 276 specimens were taken randomly from clitoral fossa and vagina of 138 pregnant (no. 9, 6.52%) and non-pregnant (no. 129, 93.48%) mares using sterile swabs. The horses included: horse riding clubs (79, 57%), referral clinical cases (32, 23%) and biological research center mares (27, 20%) in suburb of Tehran and Alborz provinces, Iran. They were transported beside ice bags to the diagnostic laboratory in Faculty of Veterinary Medicine, University of Tehran, Iran. The cultures were confirmed using differential biochemical tests. The data were analyzed using SPSS software version 19. *P. aeruginosa* was isolated from 6 mares (4.35 %). *P. aeruginosa* was isolated from clitoral fossa (No. 2, 1.45%), vagina (No.2, 1.45%) and clitoral fossa + vagina (No. 2, 1.45%), respectively. Infected mares aged among 8-20 years old. All of the infected mares were non-pregnant. Four (2.9%) and 2 (1.45%) mares were Thoroughbred and Arab breed, respectively. *P. aeruginosa* was isolated only from mares in the horse riding clubs in both suburbs of Tehran and Alborz provinces of Iran. It is concluded that mares of horse riding clubs in suburb of Tehran and Alborz provinces, Iran are infected by *P. aeruginosa*. The control programs should be done using routine screening of swabs taken before mating by laboratories experienced in the isolation and identification of this specific organism in horse riding clubs and also other horse rearing centers in Tehran and Alborz provinces of Iran.

Key words: Alborz, Mare, *Pseudomonas aeruginosa*, Reproduction, Tehran

* **Corresponding Author:** Massoud Talebkhan Garoussi, Professor, Department of Theriogenology, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran
E-mail: garoussi@ut.ac.ir



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