

47th World Congress on Microbiology

September 10-11, 2018 | London, UK

Antimicrobial resistance of *Brucella* isolated from seropositives cattle in the department of Tizi Ouzou, Algeria

Nedjma Lounes¹, Abdallah Bouyoucef¹, Malika Lazri², Nabila Benamrouche², Hassiba Tali Maamar² and Kheira Rahal²

¹National Veterinary High School (ENSV), Algiers, Algeria

²Medical Bacteriology Laboratory, Pasteur Institute of Algeria, Algiers, Algeria

Bovine Brucellosis is enzootic and widespread in all departments of Algeria, with variable prevalence depending on the region. During the two last decades, the veterinary authorities declared an average infection rate of 1 % in cattle. All the investigations and epidemiological data were based only on serological surveys, and didn't provide the knowledge on the epidemiology of *Brucella* circulating strains. The epidemiological map of prevailing species and biotypes of *Brucella* in Algerian livestock have never been established. Our study aims (i) to isolate and to identify the different biotypes of *Brucella* prevailing in the department of Tizi Ouzou (centre north Algeria) from cattle, and (ii) to study their susceptibility to antibiotics. Between October 2011 and May 2014, 32 samples, including 14 milks and 18 lymph tissues (9 retropharyngeal and 9 supramammary lymph nodes) were collected from 15 infected cattle (detected during screening and slaughtered under the control program) coming from 11 farms, situated in six town of the department. *Brucella* strain characterization were performed according to the technique described by the French standard AFNOR NF U47-105. The sensitivity of the isolated strains to six antibiotics (streptomycin, rifampicin, gentamicin, tetracycline, doxycycline and trimethoprim-sulfamethoxazole) was tested by E-test method. A total of 11 strains of *Brucella* were isolated, 3 from milks (27%) and 8 from lymph nodes (73%), 3 from retropharyngeal (27%) and 5 from supramammary (45,5%). All isolated strains was classified to *Brucella abortus* biovar 3. The E-test revealed that 4 of the isolated strains were resistant to streptomycin (36,4%). This study represents the first investigation in Algeria on the characterisation of *Brucella* strains from cattle. This results may contribute (i) to establish the epidemiological map of the distribution of different *Brucella* strains prevailing in the this region, and (ii) alert to the existence of the antimicrobial resistance of *Brucella*.

lounesnedjma@gmail.com