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***In vitro* susceptibility of *Bartonella* species to 19 antimicrobial compounds of Etest**

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Objective: This study detected the Minimum Inhibitory Concentrations (MICs) of 19 antibiotics in 10 categories of *Bartonella* strain to provide evidence for clinical antibiotic use and drug resistance monitoring.

Methods: The susceptibility of *Bartonella* strains to 19 antibiotics and the antibiotic MICs were detected using E test. The MICs of 19 antibiotics to *Bartonella* including doxycycline, azithromycin and rifampicin were detected using 35 strains of *Bartonella* in 11 genera. Etest were performed according to the manufacturers' instructions. The McFarland bacterium suspension with turbidity 2.0 was made by using cultured *Bartonella* strains and inoculated evenly on trypsin soybean agar medium containing 5 % defibrinated sheep blood. MICs were observed at the 7th or 14th day (when bacterial growth was sufficient). All tests were performed in duplicate.

Results: Thirty-five strains (35) were sensitive to 13 antibiotics including doxycycline, azithromy, erythrocin and clarithromycin, the MICs were ≤ 0.016 mg/L. Thirty-four (34) strains were sensitive to rifampicin, the MICs was < 0.002 mg/L, H15SC strain isolated from monkey was highly resistant to rifampicin (MIC >32). All strains were not sensitive to clindamycin, amikacin, vancomycin, polymixin and trimethoprim-sulfamethoxazole. The MICs of these antibiotics were significantly higher.

Conclusion: Most *Bartonella* strains are sensitive to 14 antibiotics but they are not sensitive to the other five antibiotics. In particular, it is noted that H15SC strain isolated from monkey is highly resistant to rifampicin. Similar to gentamicin, rifampicin is a fungicide that can enter red blood cells and mainly used to treat endocarditis. The result should be brought to the attention of researchers. It is necessary to select antibiotics sensitive to *Bartonella* during treatment.

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