

Research Article

Antibiotic resistance and plasmid profiling of *Pseudomonas aeruginosa* isolated from some ruminants in Basrah, Iraq

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Abstract

This work aimed to determine the antibiotic-resistant patterns of *Pseudomonas aeruginosa* isolates obtained from clinical, healthy, and environmental samples from some ruminants (cows, and sheep). A total of 200 *P. aeruginosa* were obtained, and 52 isolates resisted all antibiotics used in the antibiotic sensitivity test. The antibiotic-resistant pattern showed that *P. aeruginosa* had high resistance (100%) to ampicillin, ceftazidime, gentamycin, ciprofloxacin, piperacillin, tobramycin, imipenem, amikacin, streptomycin, levofloxacin, rifampin, tetracycline, trimethoprim, ofloxacin, carbenicillin, penicillin, and nalidixic acid and had low resistant to colistin and fosfomycin. The plasmid profile was carried out on 12 selected multidrug-resistant (MDR) isolates that were resistant to more classes of antibiotics. All strains were found to possess plasmid bands. Five of the strains had 3 plasmid bands, 4 strains 2 plasmid bands and 3 strains possessed a single band. The sizes of the plasmids among *P. aeruginosa* isolates were 735, 1400 and 3000bp. All the strains that had plasmids were resistant to gentamycin, ciprofloxacin, piperacillin, tobramycin, imipenem, carbenicillin and tetracycline. Keywords: *Pseudomonas aeruginosa*, Antibiotic resistance gene, Ruminant, DNA. Citation: Al-Tememe, T.M.K. & Abbas, B.A. 2022 Antibiotic resistance and plasmid profiling of *Pseudomonas aeruginosa* isolated from some ruminants in Basrah, Iraq. Iranian Journal of Ichthyology 9(Special Issue 1, 2022): 334-339.