عنوان مقاله:

Detection of tetracycline resistance genes in bacteria isolated from fish farms using polymerase chain reaction

محل انتشار:

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خلاصه مقاله:

Five common tetracycline resistance genes tet(A), tet(B), tet(M), tet(O) and tet(S) were studied by polymerase chain reaction in ۱۰۰ bacteria isolated from Iranian fish farms. In the antibiogram test most of the bacteria were either intermediately or completely resistant to tetracycline. Nine isolates out of ۴۶ Aeromonas spp. contained either tet(A/M/S) resistant genes as follows: tet(A) in A. veronii/sobria (n = ۱), A. media (n = ۲), A. aquariorum (n = ۱), and A. veronii (n = ۳); tet(M) in one isolate of A. sobria and tet(S) in ۱ isolate of A. jandaei. In other bacteria, tet(A) gene was detected in Citrobacter freundi (n = ۱), Pseudomonas putida (n = ۱); tet(S) was also identified in Yersinia ruckeri (n = ۱), Arthrobacter arilaitensis (n = ۱) and P. putida (n = ۱). In total, ۳۱ isolates (۳۱.۰۰%) contained the tetracycline resistance genes in which ۲۱ bacteria (۲۱.۰۰%) showed the tet(S), nine bacteria (۹.۰۰%) contained the tet(A) and ۱ bacteria (۱.۰۰%) was positive for tet(M). All of the L. garvieae isolates contained tet(S) in this study. The most widely distributed resistance gene was gene tet(A) and the least known resistance genes was tet(M) among the studied bacteria of the genus Aeromonas in this study.

کلمات کلیدی:

Bacteria, Fish farm, Polymerase chain reaction, Resistance gene, Tetracycline