

عنوان مقاله:

Epidemiology, genotypic diversity, and antimicrobial resistance of *Lactococcus garvieae* in farmed rainbow trout
(*Oncorhynchus mykiss*)

محل انتشار:

مجله علوم شیلات ایران، دوره 19، شماره 1 (سال: 1398)

تعداد صفحات اصل مقاله: 18

نویسندگان:

M. Duman - *Uludag University, Faculty of Veterinary Medicine*

A.G. Buyukekiz - *Uludag University, Faculty of Veterinary Medicine*

I.B. Saticioglu - *Erciyes University, Faculty of Veterinary Medicine*

M. Cengiz - *Uludag University Faculty of Veterinary Medicine*

P. Sahinturk - *Uludag University Faculty of Veterinary Medicine*

S. Altun - *Uludag University Faculty of Veterinary Medicine*

خلاصه مقاله:

Bacterial agents must be genotypically analyzed for vaccinations, effective control programs, and antimicrobial resistance genes that could transfer from aquaculture settings to terrestrial ecosystems and humans. Therefore, we investigated the prevalence, genotypic characterization, and antimicrobial resistance of *Lactococcus garvieae* for two years at aquaculture sites throughout Turkey. A total of ۱۳۷ *L. garvieae* isolates were obtained from rainbow trout (*Oncorhynchus mykiss*) farms in different regions of Turkey, and three reference strains were used. The isolates were confirmed genotypically using species specific primer sets. All isolates were genotyped with RAPD-PCR using M۱۳ primers. Five different genogroups were determined, and the reference strains were found to differ from all the isolates. Some isolates were compared with the GeneBank database and most isolates were within the same European, Asian, Australian, and South African genogroups. Isolates showed differing levels of resistance to most of the commonly used antimicrobials. The *ermB*, *ermA*, *tetM*, and *tetS* genes were identified and confirmed, whereas the *floR*, *sulI*, *sulII*, *sulIII*, *tetA*, *tetB*, and *tetE* genes were not detected. The identification of antimicrobial resistance genes in rainbow trout fry (weight ۰.۵ g) showed that genes for antimicrobial resistance could be spread during any stage of the fishes' life, thereby facilitating transmission of resistance to humans and other animals. The investigation of antimicrobial resistance genes in phenotypically susceptible isolates revealed that it is insufficient to investigate only phenotypic resistance in antimicrobial resistance studies.

کلمات کلیدی:

Lactococcus garvieae, Genotyping, RAPD-PCR, Antimicrobial resistance, Antimicrobial resistance genes

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1401499>

