



Antibiotic resistance of *Aeromonas hydrophila* in warm water fish of Guilan province

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Abstract

Aeromonas hydrophila is one of the most important bacteria in the occurrence of disease in warm-water fish, which has caused great damage to the Fish farming industry. Besides that, the bacterium can cause complications in humans, such as gastroenteritis and diarrhea.

Knowing the pattern of resistance of *Aeromonas hydrophila* to antibiotics has an effective role in choosing the right antibiotic and controlling the infection in the pond fish pond. This study was performed on 150 samples of diseased fish during the years 2013 to 2018 in warm-water fish farming ponds. The fish were transferred to the bacteriological laboratory of the Aquaculture Research Institute in health conditions Parts of the liver, kidneys, and spleen of the fish were sampled and incubated for 24 hours in Blood agar and GSP agar environments in a 37 °C incubator. After bio Iranian Fisheries Science Research Institute (IFSRI), in land waters Aquaculture research center, Agriculture Research Education and Extension Organization (AREEO) Anzali, Iran. Fisheries Science Research Institute (IFSRI), in land waters Aquaculture research center, Agriculture Research Education and Extension Organization (AREEO) Anzali, Iran. Chemical tests were performed. Antibiotic susceptibility to disc diffusion method was performed on Mueller Hinton Agar and antibiotic disks including: Doxycycline, Clindamycin, Kanamycin, Methicillin, Rifampin, Erythromycin, Nalidixic acid, Oxytetracycline, Gentamicin, Clindamycin, Florfenicol, Ciprofloxacin, Enro tetracycline, Amoxicillin were used. It had the highest resistance to Erythromycin, Amoxicillin, and the highest sensitivity to Florfenicol and Enrotetracycline. In order to prevent economic losses, it is necessary to pay attention to how to use and use antibiotics before treatment.

Keywords: *Aeromonas hydrophila*, warm-water fish, Antibiotic resistance, bacteria