

Antibacterial sensitivity pattern of pathogenic bacteria isolated carp larvae and fingerlings

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This study aims to awareness of the most common bacterial pathogens involved in cutaneous lesions of larvae and farmed carp fish, determine their antibiotic resistance patterns and their susceptibility to the extracts of some medicinal plants. A number of 80 fry and larvae 4 species of Cyprinidae including common carp, silver carp, grass carp and Bighead carp which have cutaneous lesions in different areas of the dorsal fin and the tail, gills and eyes were collected the pools of a fish farm during May to August 2016. After sampling of larvae and fry Cyprinidae and preliminary culture tests and biochemical tests, isolates were identified. The pattern of antibiotic resistance in some isolates was set using Kirby-Bauer method and using 10 different antibiotics, including bacitracin, Amikacin, Clavulanic acid, Cefepime, cephalothin, ceftriaxone, Streptomycin, amoxicillin, phosphomycin and tetracycline and compare the results with standard tables CLSI. The results showed that a total of 9 bacterial genera different parts of the tail, fins, skin and gill of Cyprinidae were isolated including Staphylococcus aureus (2.5), Coagulase-negative Staphylococcus fingerlings s species (%), Proteus (□), E. coli (□), Citrobaacter species (%), Klebsiella (□.25), Salmonella (□.75), Pseudomonas ("5), Aeromonas hydrophila (□.5) and Bacillus spp. ((.75). Also in reviews of Cyprinidae larvae, the most and the least isolates were related to Bacillus spp. and Aeromonas hydrophila, respectively. One hundred percent of isolates were resistant to the antibiotic tetracycline in terms of antibiotic resistance. Ninety percent of the isolates were resistant to amoxicillin and Bacitracin. Also 50% of the isolates were sensitive to the antibiotic ceftriaxone followed by Cefepime and phosphomycin that showed greatest impact on isolates. Of the three types of turmeric extract, olive leaf and thyme, turmeric extract by 100 ml was better in antimicrobial properties than other extracts. According to the results of this study it seems that most bacterial isolates was Enterobacteriaceae family and the most

effective antibiotic was ceftriaxone.

Keywords : Bacterial Pathogen, Common Carp, Silver Carp, Grass Carp, Bighead Carp, Turmeric Extract, Olive Leaf, Thyme, Antibiotic.

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