

Experimental pathogenicity of Achlya species from cultured Nile tilapia to Nile tilapia fry in Thailand

Abstract

Experimental infection of Nile tilapia (*Oreochromis niloticus*) fry using 6 *Achlya* isolates from cultured Nile tilapia with water mold infections was attempted. The experimental fish were exposed to 1.0×10^2 and 1.0×10^4 zoospores mL⁻¹ of each *Achlya* isolate after ami-momi treatment. The cumulative mortality rates of fish exposed to 1.0×10^4 zoospores mL⁻¹ of *A. klebsiana* BKKU1003, and *A. diffusa* BKKU1012 were 88.8 and 77.7%, respectively. *A. klebsiana* BKKU1003 was more pathogenic than the other isolates. Histopathological examination of the skin of Nile tilapia fry exposed to 1.0×10^2 zoospores mL⁻¹ of *A. klebsiana* BKKU1003 showed numerous hyphae grew on the skin surface and some areas of skin were sloughed. The fish exposed to 1.0×10^4 zoospores mL⁻¹ of *A. klebsiana* BKKU1003 showed massive accumulated hyphae on skin lesions with necrosis of the epidermal cells and the hyphae penetrated from the epidermis to the musculature without granulomatous response surrounding the hyphae. We found that it is possible to infect tilapia fry by exposing them to zoospores of *Achlya* after the ami-momi treatment. © 2015 BIOFLUX SRL. All rights reserved.