

Evaluation of safe attenuated vibrio alginolyticus for oral vaccination of lates calcarifer against vibriosis.

ABSTRACT

Safe attenuation has been done on marine pathogen *Vibrio alginolyticus* using naturally acidified fructose against vibriosis. Attenuation was confirmed by injecting the attenuated bacterium into fish where the survival rate was 100% compared to 50% survival in fish injected with non-attenuated bacteria. The attenuated bacterium was then evaluated for oral vaccination of *Lates calcarifer* (Asian seabass). Fish were fed with fish pellet incorporated with attenuated and non-attenuated bacterium of *V. alginolyticus* for 30 days. They were measured for serum antibody production by conventional agglutination titer and also monitored for the fish weight gain to observe the health improvement. Vaccinated fish showed comparable increased in weight gain, 90% survival after challenge and significantly high antibody titer compared to other treatment and control.

Keyword: Vaccines; *Vibrio alginolyticus*; *Lates calcarifer*; Minimal inhibitory concentration; Polymerase chain reaction.