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Vibriosis in cultured marine fishes: a review

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Abstract

For more than a century, vibriosis affects various species of economically important cultured marine fishes around the globe. The knowledge of this bacterial disease on many species of cultured fish is still lacking, but progressing. This review focuses on updated fundamental knowledge related to vibriosis including the history, taxonomy, and various epidemiological aspects such as socio-economy, clinical signs, pathological changes, diagnosis, pathogenesis, transmission, risk factors and control measures of vibriosis. This review revealed a rising prevalence of vibriosis in aquaculture, concomitant with the rapid development of this industry worldwide. Yet, information on *Vibrio* infection in cultured fish, particularly on the *Vibrio* of non-medical importance, the influence of their virulence toxins to host cells, effects of global warming and the socio-economic impacts are still scarce, and need more profound studies. Moreover, comprehensive epidemiological information on vibriosis are quite limited in many Asian countries with tropical climate, limiting the progression in control and prevention aspects of the disease. © 2019 Elsevier B.V.

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Aquaculture; Fish pathogen; Health management; Marine finfish; Vibriosis

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aquaculture, bacterial disease, bacterium, disease prevalence, fish, global warming, infectivity, pathogen, socioeconomic impact, virulence; Asia; Bacteria (microorganisms), Pisces, *Vibrio*

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