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Antiviral potential of some medicinal plants against *White Spot Syndrome Virus* (WSSV) of black tiger shrimp *Penaeus monodon*

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Viral diseases in aquaculture pose as an important limiting factor. In recent years, *White Spot Syndrome Virus* (WSSV), the most contagious pathogen of cultured shrimp, causes mass mortality, leading to huge economic loss to the shrimp industry especially black tiger shrimp in many countries including Bangladesh. Mass mortality due to the manifestation of WSSV in southern part of Bangladesh is very common. Many attempts have been made for finding a solution to this problem. With the huge outbreak and lack of effective therapeutic or prophylactic measures necessitate the development of antiviral agents. A PCR protocol was used associated with two different primers yielding amplicons of 146 F2-R2 (941bp) and, I-K 3-4 (298 bp). Two different concentrations of *Aegle marmelos, Momordica charantia* and *Cynodon dactylon* were tested separately against WSSV in P. monodon. The results revealed that the extract of *A. marmelos, M. charantia and C. dactylon* have potential antiviral activity against the viral disease. At the end of the experiment for *A. marmelos and M. charantia*, the extracts showed anti-viral effect in shrimps at the concentration of 150 mg/kg and for C. dactylon, the effective conc. was found to be 100 mg/kg of body weight. No mortality, no external signs occurred during the study period. The overall results suggested that those plants could protect *P. monodon* from *white spot syndrome virus* infection and could be an effective and eco-friendly anti-viral agent to combat the WSSV in shrimp culture.

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