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Studies on Some Viral Infections of Crustaceans from Different Aquatic Environments in Egypt

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ABSTRACT

The current study was performed to fill up the gap in knowledge about common crustacean specific viruses (WSSV) and check the liability of some marine and freshwater crustaceans to contract infection with other viruses of public health importance such as Avian Influenza (H5N1) through Egyptian aquatic habitat. Randomly, a total of 268 different shellfish samples including 28 *P. clarkii* were collected from Abbassa, Sharkiya and 240 marine samples (100 *P. japonicus*, 100 *P. semisulcatus, 20 C.sapidus* and 20 *P.pelagicus*) were collected from Suez Gulf and Murrah Lakes and molecularly tested for WSSV using regular PCR procedures. PCR results revealed that 2/10 pools of *P.japonicus* exoskeleton from Suez Gulf were positive for WSSV and 1/10 pools of the same species from Murrah Lakes was also positive for the virus. The condition was little optimistic in case of *P.semisulcatus* only 1/10 pools from Suez Gulf was positive and pools from Murrah Lakes were negative. Controversially, the freshwater Crayfish from Abbassa, Sharkiya were all negative for WSSV with the exception of only one sample out of 28. Moreover, Crabs from both suez Gulf and Murrah Lakes were all negative for the virus. On the other hand, the molecular screening of all aforementioned shellfish samples using RT-PCR revealed no infection in all examined marine shellfishes (shrimps and crabs) , while 14.3% (4/28) of freshwater crayfish were positive for Avian Influenza H5N1 virus.

Key words: (WSSV-AI (H5N1)- Marine shrimp - Crabs - Red swamp crayfish).

Dedication

No words can express my gratitude to my whole family who used every means of their power for helping and supporting me.

Dedicated to:

My mother

, my wife

, my sons (Ahmed & Adam)

, my sister

And the soul of my father.

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