

عنوان مقاله:

Mortality of wild golden grey mullet (*Liza auratus*) in Iranian waters of the Caspian Sea, associated with viral nervous necrosis-like agent

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خلاصه مقاله:

An acute mortality caused by an uncertain agent occurred in wild golden grey mullet (*Liza auratus*) population in the Iranian side of the Caspian Sea in February, ۲۰۰۴. Clinical signs of the moribund fish were erratic behavior such as spiral swimming, belly-up at rest and over inflation of swim bladder. Histological examination of brain of dead fish revealed hyperaemia, degeneration and necrosis in external granular layers as well as focal extension in intestine. Severe leucopenia was also observed. No putative causal factors were suggested by bacteriological, parasitological or environmental examinations. In virological examinations, however brains of affected golden grey mullet were positive in the reverse transcriptase-polymerase chain reaction test for piscine nodavirus (Nodaviridae, Betanodavirus), the causative agent of Encephalopathy and retinopathy (VER), otherwise known as viral nervous necrosis (VNN) in a variety of cultured marine fishes worldwide. Nucleotide sequence of the PCR amplicons is closely related with the coat protein gene of piscine nodaviruses, particularly redspotted grouper nervous necrosis virus (RGNNV). Although, it was not succeeded to isolate the virus, experimental infection with the brain homogenates of the affected fish in sevenband grouper (*Epinephelus septemfasciatus*), which is highly susceptible to RGNNV, produced neurological abnormality followed by mortality. These results suggest that the mortality observed in golden grey mullet in the Caspian Sea might have been associated with piscine nodavirus infection.

کلمات کلیدی:

Golden grey mullet, VER, VNN, Nodavirus, PCR, Caspian Sea, IRAN

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