

## عنوان مقاله:

Research Article: Effects of nanoparticles of dried Aloe vera extract on some of the hematological parameters, liver (enzymes and immune responses in Siberian sturgeon (*Acipenser baerii*)

## محل انتشار:

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## خلاصه مقاله:

Today, nanotechnology is considered as a priority and strategic technology for all countries due to its wide range of applications. The present study was performed to evaluate the effects of various levels of dried Aloe vera extract nanoparticles on some hematological parameters, liver enzymes and immune responses of Siberian sturgeon (*Acipenser baerii*). Three hundred sixty *Acipenser baerii* (with mean weight of  $10.95 \pm 0.04$  g), were randomly divided into three treatment groups including 0.5%, 1% and 1.5% of nanoparticles of dried Aloe vera extract and one control group (without any additive), each in three replicates, stored in twelve tanks of 500-liter fiberglass with 350 liters water. Water physicochemical parameters were recorded daily. Nanoparticles of dried A. vera extract in a ratio of 0.5%, 1%, and 1.5% were added to the treatment groups diet for 2 months. At the end of the first and second months of rearing, the necessary samplings for hematology and serology studies were done. The results of this study showed that the amounts of RBC, Hb, Hct, MCV, WBC, lysozyme, ACH50 and IgM were significantly different in the treatment groups compared with the control group at the end of the study ( $p < 0.05$ ). There were no significant differences in liver enzymes including ALT, AST and ALP between treatments and control groups ( $p > 0.05$ ). In conclusion the results have shown that use of nanoparticles of dried A. vera extract had the impact of immune function booster and the usage of this nanoparticle mainly at the level of 1% in the diet can be used as a safety stimulant for Siberian sturgeon.

## کلمات کلیدی:

A. vera, Nanoparticles, Hematological parameters, Immune indices, Siberian sturgeon

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