Effects of injection estradiol-17β on hematological indices in juvenile stellate sturgeon (*Acipenser stellatus*)

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Receive date: 2013.08.21
Acceptant date: 2014.02.19

Abstract

In this study, the effect of 17β - estradiol on hematological indices in juvenile stellate sturgeon (*Acipenser stellatus*) was investigated. For this, 120 juvenile stellate sturgeons with an average weight of 40.9 ± 1.1 g were divided to 2 treatments (20 fish/tank). Juvenile stellate sturgeon, *Acipenser stellatus* were intraperitoneally injected with estradiol-17β (E2; 0 and 5 mg/kg fish). The duration of the experiment was considered for 7 months and at the end of the experiment, 5 fish were randomly sampled for measuring hematological indices including number of red blood cells (RBC), white blood cells (WBC), hemoglobin (Hb), hematocrit (Hct), mean corpuscular haemoglobin (MCH), mean corpuscular volume (MCV) and mean corpuscular hemoglobin concentration (MCHC). Results showed that hematological features of E2-treated fish showed significant reduction in number of red blood cells, haemoglobin concentration, hematocrit value and mean corpuscular haemoglobin (P<0.05), but no significant changes were observed in number of white blood cells, mean corpuscular volume and mean corpuscular haemoglobin concentration (P>0.05). These results revealed that the injection of E2 could cause anaemia in stellate sturgeon

Keywords: *Acipenser stellatus*, 17β- estradiol, Injection, Blood indices.