Buoyancy disorders of freshwater ornamental fish

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In fish, buoyancy is controlled by the amount and distribution of gas within the swim bladder. During three years, 18 freshwater ornamental fish including six flower horn fish (hybridcichlid), five fancy goldfish (Carassius auratus), four oscars (Astronotus ocellatus), one moray eel (Gymnothorax tile), one koi (Cyprinus carpio koi), and one redtail catfish (Phractocephalus hemioliopterus), with buoyancy disorders were referred to the Department of Aquatic Animal Health, Veterinary Faculty, University of Tehran with different buoyancy disorders. Some of them sank to the bottom (negative buoyancy), some were floating at the top (positive buoyancy), and some were listing or rolling. After clinical examination, dorsoventral (DV) and lateral (L) radiographs were taken for all of them. Sonography was performed for seven of them. Samples for pathological studies were taken from eight fish and fixed in 10% buffered formalin and sections were stained with H& E. Radiological studies showed that nine cases had over-inflation of their swim bladder. Two cases had displacement of swim bladder. One case had intestinal tympany. Four cases had rupture of the swim bladder. Sonography showed polycystic liver and fluid accumulation in two cases and renal tumor in two other cases. Autopsy showed three cases had fluid accumulation on their swim bladder. Autopsy and pathological findings showed that one case had cystic kidney and two cases had cystic liver and two other cases had renal tumor. One goldfish that had intestinal tympany and one flower horn fish that had rupture of the swim bladder were treated and could swim normally.

Biography
Amir Alijani completed his DVM at Faculty of Veterinary Medicine, Tehran University in 2014. He has written several articles about aquaculture and aquarium fishes for some Persian magazines and he is a member of aquatic animal health scientific community at Tehran University.

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