## عنوان مقاله:

(Lactococcosis: an important bacterial disease in rainbow trout (Oncorhynchus mykiss

## محل انتشار:

اولین کنگره بین المللی مدیریت بهداشتی و بیماریهای آبزیان (سال: 1387)

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## خلاصه مقاله:

Objective: Lactococcosis is a kind of Streptococcosis caused by L. garvieae, which has been particularly devastating in the freshwater culture of salmonid fish and marine-cultured species. Lactococcus garvieae is an important pathogen and emerging zoonotic pathogen which has been isolated from fish. The losses produced can exceed approximately 50–80% of the total production. This pathogen is a facultative anaerobic, non-motile, non-spore forming, Gram-positive ovoid coccus, occurring in pairs and short chains, and it produces α- haemolysis on blood agar (BA). In this study the causative agent of mortality in the farmed rainbow trout in Chaharmahal-va- Bakhtiary Province were isolated and investigated. Method & Materials: During the survey, some mortality in three rainbow trout farms of Sendegan Region in Chaharmahal-va-Bakhtiary Province, were occurred. The appearance of a rapid and general anorexia, melanosis, lethargy, loss of orientation and erratic swimming was observed. Typical external signs of affected fish are exophthalmia (uni- or bilateral), the presence of hemorrhages in the periorbital and intraocular area, base of fins, perianal region, opercula. It is also very common to observe fish with swollen abdomens. Results & Conclusion: Identification of causative agents carried out in affected organs (brain, kidney and liver) and bacterial isolates by PCR metod. A PCRbased protocol was developed for L. garvieae identification. The authors designed a set of primers, pLG-1 (5′- ATAACAATGAGAATCGC-3′) and pLG-2 (5′-GCACCCTCGCGGGTTG-3′) from the 16S rDNA sequence, as this techniques confirmed the disease in total affected fishes. Rainbow trout is the most sensitive species and suffers acute disease associated with elevated mortalities compared to other fish species. Other species like common carp (Cyprinus carpio) are resistant to the disease. The data presented above, showed that the PCR assay performed on a very limited amount of plasma (1 µl) is sensitive enough to detect specifically L. garvieae in fish originating from a pond where an active epizootic is occurring. From these data, it can be concluded that the proposed PCR assay can be useful not only for diagnostic but also for epidemiological surveys and could be an efficient tool to establish preventive measures on time (antibiotic prophylaxis, vaccination).

## کلمات کلیدی:

Lactocoocus garvieae-Streptoccocusis-Chaharmahal-va-Bakhtiary