

**Lethal dose and clinical signs of *Streptococcus agalactiae* in Javanese medaka (*Oryzias javanicus* Bleeker 1854)**

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**Abstract**

This study was conducted to determine the lethal dose and clinical signs of *Streptococcus agalactiae* in Javanese medaka. Javanese medaka was collected in Sungai Pelek, Sepang and brought to the laboratory for acclimatization. The fish were then challenged from  $10^2$  -  $10^8$  CFU/ml of *S. agalactiae* via intraperitoneal injection. Mortalities and clinical signs were observed until 10 days of exposure, while the dead fish were collected for bacterial isolation and histological analyses. Lethal dose 50% (LD<sub>50</sub>) of *S. agalactiae* in Javanese medaka was determined at  $6.5 \times 10^3$  CFU/mL. Most of the infected fish showing lethargy, erratic swimming, exophthalmia, opacity and necrosis at the injection site. The histopathological changes were mainly generalised congestion of the internal organs. *Streptococcus agalactiae* were successfully isolated from the dead fish. Results showed that Javanese medaka was susceptible towards *S. agalactiae* infection and could be a potential alternative organism for study of streptococcosis in fish.

Keywords: Javanese medaka, *Streptococcus agalactiae*, test organism, lethal dose, clinical signs.

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