

ABSTRAK

DETEKSI INFEKSI *Aeromonas hydrophila* PADA KULIT IKAN NILA (*Oreochromis niloticus*) DENGAN PEWARNAAN HEMATOKSILIN- EOSIN DAN IMUNOHISTOKIMIA

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Infeksi *Aeromonas hydrophila* menyebabkan kerugian yang besar terhadap budidaya ikan di Indonesia. Diagnosa tepat terhadap penyakit yang disebabkan *A.hydrophila* dibutuhkan. Tujuan penelitian ini adalah untuk mengamati perubahan histopatologi pada kulit ikan nila yang terinfeksi *A.hydrophila*.

Lima sampel kulit ikan nila yang terinfeksi *A.hydrophila* dengan gejala hemoragi dan ulserasi dibuat preparat histopatologi dengan pewarnaan Hematoksilin-Eosin. Pengecatan immunohistokimia juga dilakukan pada sampel jaringan kulit dengan digunakan antibodi primer yang diproduksi pada kelinci, antibodi sekunder dengan *System-HRP*. Pengecatan IHK dilakukan untuk penentuan diagnosa infeksi *A.hydrophila*.

Hasil menunjukkan lesi berupa hemoragik fokal dan infiltrasi neutrofil pada jaringan kulit ikan nila. Hasil dari pengecatan immunohistokimia membuktikan bahwa kelima sampel kulit ikan nila tes positif terinfeksi *A.hydrophila* yang ditunjukkan dengan warna kecoklatan. Kesimpulannya, perubahan histopatologis jaringan kulit ikan nila yang terinfeksi *A.hydrophila* adalah infiltrasi neutrofil dan hemoragi, yang diperkuat dengan warna coklat pada pengecatan IHK.

Kata kunci: *Aeromonas hydrophila*, Immunohistokimia, Hematoxylin-Eosin, Hemoragi, Infiltrasi neutrofil

ABSTRACT

DETECTION OF *Aeromonas hydrophila* INFECTION ON TILAPIA FISH SKIN (*Oreochromis niloticus*) WITH HEMATOXYLIN-EOSIN STAINING AND IMMUNOHISTOCHEMISTRY STAINING

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Aeromonas hydrophila infection causes major loss in fish industries in Indonesia. Accurate diagnosis of the diseases caused by *A. hydrophila* is needed in order to increase the effectiveness of the treatment. The aim of this research is to observe the histopathological changes in Tilapia fish's skin caused by *A. hydrophila* infection.

Five *A. hydrophila* infected tilapia fish skin sample which exhibit haemorrhagic and ulceration lesions were made into histopathologic specimen with H-E staining. Immunohistochemistry staining was done on the skin samples with primary antibody obtained from rabbit and secondary antibody with HRP-System. IHC staining was done to further confirm the diagnosis of *A. hydrophila* infection.

Histopathological findings of *A. hydrophila* on skin tissue samples of Tilapia fish were focal haemorrhagic lesions and infiltration of neutrophils. All 5 tissue samples were tested positive *A. hydrophila* infected in immunohistochemistry staining by the exhibition of brown colour in the tissue. This research concluded that the histopathological changes in *A. hydrophila* infected fish skin are haemorrhages and neutrophils infiltration, and the diagnosis was further confirmed with exhibition of brown colour in immunohistochemistry staining.

Keyword: *Aeromonas hydrophila*, Immunohistochemistry, Hematoxylin-Eosin, Haemorrhage, Neutrophils infiltration