INTISARI

Resistensi *Edwardsiella tarda* yang Diisolasi dari Lele (*Clarias* sp.) terhadap *Erythromycin, Oxytetracycline* dan *Enrofloxacin*

Edwardsiella tarda merupakan bakteri patogen penyebab penyakit edwardsiellosis pada ikan air tawar dan bersifat zoonosis pada manusia. Salah satu upaya pengobatan yang dilakukan oleh pembudidaya ikan adalah dengan menggunakan antibiotik. Penelitian ini dilakukan untuk mengetahui adanya resistensi bakteri *E. tarda* hasil isolasi dari ikan lele (*Clarias* sp.) di Provinsi Daerah Istimewa Yogyakarta terhadap antibiotik yang diijinkan di Indonesia, yaitu *erythromycin*, *oxytetracycline*, dan *enrofloxacin*. Konfirmasi bakteri *E. tarda* dilakukan secara molekuler dengan menggunakan primer spesifik *E. tarda* (etfD). Uji sensitivitas antibiotik dengan metode *disk diffusion* dan dibandingkan dengan *Clinical and Laboratory Standards Institute* (CLSI). Isolat bakteri *E. tarda* yang sensitif terhadap antibiotik uji dilanjutkan dengan uji *Minimum Inhibitory Concentration* (MIC) dan *Minimum Bactericidal Concentration* (MBC). Hasil penelitian menunjukkan bahwa 16 isolat (88,89%) bakteri *E. tarda* resisten *erythromycin* dan *enrofloxacin* serta 12 isolat (66,67%) resisten terhadap *oxytetracycline*. Sebanyak 5 isolat (27,78%) bakteri *E. tarda* sensitif terhadap *oxytetracycline* dan hanya satu isolat (5,56%) sensitif terhadap *enrofloxacin* serta tidak ada isolat yang sensitif terhadap *erythromycin*. Hasil MIC bakteri *E. tarda* terhadap *oxytetracycline* adalah antara 187,50 – 375,00 µg/ml. Sedangkan MIC bakteri *E. tarda* terhadap *enrofloxacin* adalah 3,91 µg/ml dan MBC 250,00 µg/ml.

Kata kunci : *erythromycin, enrofloxacin, oxytetracycline, E. tarda*, lele, resistensi

ABSTRACT

Resistance of *Edwardsiella tarda* Isolated from Catfish (*Clarias* sp.) to *Erythromycin, Oxytetracycline* and *Enrofloxacin*

Edwardsiella tarda is a pathogenic bacterium that causes edwardsiellosis in freshwater fish and zoonotic to humans. The use of antibiotics in aquaculture is considered as one of the attempts to eradicate this pathogenic bacterium. This study was conducted to determine the resistance of *E. tarda* isolated from catfish in the Special Region of Yogyakarta to antibiotics approved to use in Indonesia, namely erythromycin, enrofloxacin, and oxytetracycline. To confirm that the isolate was indeed *E. tarda*, a specific primer (etfD) was used for molecular identification. Antibiotics susceptibility testing was performed using the disk diffusion method and compared to the Clinical and Laboratory Standards Institute (CLSI). The isolates that were sensitive to the antibiotics were followed up with Minimum Inhibitory Concentration (MIC) dan Minimum Bactericidal Concentration (MBC) tests. The results show that 16 isolates of *E. tarda* (88.89%) were resistant to erythromycin and enrofloxacin, also 12 isolates (66.67%) were resistant to oxytetracycline. There are 5 isolates (27.78%) sensitive to oxytetracycline, only one isolate (5.56%) sensitive to enrofloxacin, and none of the isolates were sensitive to erythromycin. The MIC value to oxytetracycline is between 187.50 – 375.00 µg/ml. Whilst the MIC value to enrofloxacin 3.91 µg/ml and the MBC value is 250.00 µg/ml.

Keywords: erythromycin, enrofloxacin, oxytetracycline, *E. tarda*, catfish, resistance