INTISARI

ISOLASI DAN IDENTIFIKASI BAKTERI DARI *SWAB* VULVA LANDAK MINI AFRIKA (*Atelerix albiventris*) DAN LANDAK JAWA (*Hystrix javanica*) SERTA UJI SENSITIVITAS TERHADAP ANTIBIOTIK

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Landak mini afrika (*Atelerix albiventris*) kini banyak diminati sebagai hewan kesayangan sedangkan landak jawa (*Hystrix javanica)* merupakan satwa endemik Jawa yang kini mulai langka. Dari laporan, ada beberapa bakteri pada landak dan dalam keadaan tertentu dapat bersifat patogen pada manusia dan hewan. Penelitian mengenai bakteri pada landak khususnya dari *swab* vulva masih sangat terbatas. Tujuan dari penelitian ini adalah untuk isolasi, identifikasi bakteri dari *swab* vulva pada landak mini afrika dan landak jawa serta mengetahui sifat sensitivitas bakteri tersebut terhadap berbagai jenis antibiotik.

Penelitian ini menggunakan dua *swab* vulva landak mini afrika dan satu *swab* vulva landak jawa. Dilakukan isolasi pada ketiga sampel dengan media basal plat agar darah, media selektif *Eosin Methylene Blue* dan *Mac Conkey Agar*, serta pengecatan Gram. Biak murni diidentifikasi dengan uji biokimia yang terdiri dari uji katalase, uji oksidase, uji fermentasi karbohidrat, uji *Indole, Methyl Red, Voges-Proskauer, Citrate* dan media *Triple Sugar Iron Agar*. Dilakukan uji sensitivitas antibiotik dengan metode *Kirby-bauer, disk* antibiotik disusun dengan jarak tertentu pada media *Mueller Hinton Agar* yang telah diinokulasi dengan suspensi bakteri kemudian diinkubasi pada suhu 37ºC selama 18-24 jam dan diukur zona hambat yang terbentuk, kemudian ditentukan sifat sensitivitasnya dengan menggunakan standar *Clinical and Laboratory Stndards Intitute.*

Hasil isolasi dan identifikasi bakteri dari *swab* vulva landak jawa dan landak mini afrika adalah *Escherichia coli* dan *Proteus mirabilis*. *Escherichia coli* sensitif terhadap Amikasin, Amoksisilin, Ampisilin, Enrofloksasin, Fosfomisin, Kloramfenikol, Tetrasiklin, Trimetoprim dan Kanamisin; intermediet terhadap Sterptomisin; dan resisten terhadap Eritomisin dan Penisilin G. *Proteus mirabilis* sensitif terhadap Amikasin, Amoksisilin, Kanamisin, Enrofloksasin dan Fosfomisin; serta resisten terhadap Eritromisin, Penisilin G, Streptomisin, Ampisilin, Kloramfenikol, Tetrasiklin dan Trimetoprim. Kesimpulan dari penelitian ini adalah terisolasi *Escherichia coli* dan *Proteus mirabilis* dari *swab* vulva landak mini afrika dan landak jawa, *Escherichia coli* sensitif terhadap delapan antibiotik, sedangkan *Proteus mirabilis* sensitif terhadap lima antibiotik.

Kata kunci: landak jawa, landak mini afrika, *Escherichia coli* dan *Proteus mirabilis.*

ABSTRACT

ISOLATION, IDENTIFICATION OF BACTERIA FROM VULVA SWAB OF AFRICAN PYGMY HEDGEHOG (*Atelerix albiventris*) AND JAVANICA PORCUPINE (*Hystrix javanica*) AND ANTIBIOTIC SUSCEPTIBILITY TEST

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The African pygmy hedgehog (*Atelerix albiventris*) is now in great demand as a pet, while the Javanese porcupine (*Hystrix javanica*) is Java's endemic animals which its existence is now threatened. From the report, there are some bacteria in porcupines, and in certain circumstances can be pathogenic in humans and animals. Research on bacteria in hedgehogs and porcupines especially from vulva swab is still limited. This research aims to isolate, identify bacteria from the vulva swab of both African pygmy hedgehog and Javan porcupine, and identifying the susceptibility of antibiotics.

This research uses vulva swab of two healthy African pygmy hedgehogs and one healthy Javan porcupine. Samples were isolated with the basal medium of Blood Agar Plate, the selective medium of Eosin Methylene Blue, MacConkey Agar and Gram staining. Pure cultures are identified by biochemical tests that are composed of catalyst test, oxidation test, carbs fermentation test, Indole test, Methyl Red test, Voges-Proskauer test, Citrate test, and TSIA medium. The antibiotic susceptibility test was done using the Kirby-Bauer method, the antibiotic disks were arranged at a certain distance on the Mueller Hinton Agar medium that had been inoculated with suspense bacteria and then incubated at 37ºC for 18-24 hours, and then measured the inhibitory zone formed, then susceptibility is determined by using the Clinical and Laboratory Standards Institute.

The results of isolation and identification of African pygmy hedgehog and Javan porcupine swab vulva was Escherichia coli and Proteus mirabilis. Escherichia is sensitive to Amikacin, Amoxycillin, Ampicillin, Enrofloxacin, Fosfomycin, Chloramphenicol, Tetracycline, Trimethoprim and Kanamycin; intermediate to Streptomycin; and resistant to Erythromycin and Penicillin G. Proteus mirabilis is sensitive to Amikacin, Amoxycillin, Kanamycin, Enrofloxacin, and Fosfomycin; and resistant to Erythromycin, Penicillin G, Streptomycin, Ampicillin, Chloramphenicol, Tetracycline, and Trimethoprim. The conclusion of this research is that Escherichia coli and Proteus mirabilis isolated from vulva swab of African pygmy hedgehog and Javan porcupine, *Escherichia coli* is sensitive to eight antibiotics, while *Proteus mirabilis* is sensitive to five antibiotics.

Keywords: *Hystrix javanica, African pygmy hedgehog, Escherichia coli and Proteus mirabilis.*