

INTISARI

IDENTIFIKASI BAKTERI *Proteus vulgaris* DARI SUSU SAPI PENDERITA MASTITIS SUBKLINIS SERTA UJI SENSITIVITAS TERHADAP ANTIBIOTIKA PENISILIN G DAN SULFONAMIDA

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Mastitis Subklinis merupakan radang kelenjar ambing tanpa gejala klinis, namun ditemukan mikroorganisme patogen dan terjadi perubahan kimia susu. Salah satu mikroorganisme patogen penyebab mastitis adalah bakteri *Proteus vulgaris*. Pengobatan terhadap mastitis subklinis biasanya menggunakan antibiotika. Pemakaian antibiotika yang tidak tepat akan menyebabkan adanya resistensi terhadap bakteri. Penelitian ini bertujuan untuk mengetahui sensitivitas dari isolat *P. vulgaris* terhadap antibiotika penisilin G dan sulfonamida asal sapi perah di koperasi UPP kaliurang.

Sebanyak 20 sampel susu sapi dilakukan uji mastitis menggunakan CMT. Selanjutnya sampel ditanam pada media *Brain Heart Infussion* (BHI), *Mac Conkey Agar* (MCA), Plat Agar Darah, gula-gula, Simon sitrat, *Sulfite Indol Motility* (SIM), *Triptic Soy Agar* (TSA), *Motility Indol Ornithine* (MIO), *Lysin Iron Agar* (LIA), *Phenilalanin Agar*, *Triple Sugar Iron Agar* (TSIA) yang diinkubasikan selama 24 jam dengan suhu 37⁰C. Setelah teridentifikasi bakteri *P. vulgaris* kemudian diuji sensitivitas menggunakan media *Muller Hinton Agar* (MHA) dengan antibiotik sulfonamida dan penisilin G yang diinkubasikan selama 24 jam, suhu 37⁰C dan diukur zona hambatnya.

Dalam penelitian ini ditemukan 3 isolat *P. vulgaris*. Hasil uji sensitivitas menunjukkan 3 isolat (100%) resisten terhadap penisilin G, 2 isolat (66,7%) resisten terhadap sulfonamida dan 1 isolat (33,3%) intermediet terhadap sulfonamida.

Kata kunci: mastitis subklinis, *P. vulgaris*, Sulfonamida, Penisilin G.

ABSTRACT

IDENTIFICATION OF *Proteus vulgaris* FROM COW'S MILK IN PATIENTS SUBCLINICAL MASTITIS AND SENSITIVITY TEST OF BACTERIAL TO PENISILIN G AND SULFONAMIDES

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Subclinical mastitis is an inflammation of the mammary glands which no clinical symptoms but were found pathogenic microorganism and chemical changes in milk. One of pathogenic microorganism causes of mastitis is *Proteus vulgaris*. Treatment of subclinical mastitis usually use antibiotics. Improper use of antibiotics will cause antibiotics resistance. The Purpose of the research is to determine the sensitivity of *Proteus vulgaris* isolates to the antibiotics Penicillin G and Sulfonamides from dairy cattle in the co-operative UPP Kaliurang.

Twenty samples of cow's milk was tested using California Mastitis Test (CMT). Then the samples were cultured on Brain Heart Infusion (BHI), Mac Conkey Agar (MCA), Blood Plate Agar, sugars Media, Simmon's citrate, Sulfite Indole Motility (SIM), Tryptic Soy Agar (TSA), Motility Indole Ornithine (MIO), lysine Iron Agar (LIA), Phenilalanin Agar, Triple Sugar Iron Agar (TSIA) are incubated for 24 hours at 37⁰ C. after the bacteria *Proteus vulgaris* identified then tested the sensitivity using Muller Hinton with sulfonamide antibiotics and Penicillin G are incubated for 24 hours at 37⁰C and measured the resistance zone.

In this reseach has found 3 isolates of *Proteus vulgaris*. The results of the sensitivity test shows that 3 isolates (100%) were resistant to Penicillin G, 2 isolates (66.7%) were resistant to sulfonamide and 1 isolate (33.3%) was intermediate of Sulfonamides.

Key words: subclinical mastitis, *P. vulgaris*, Sulfonamides, Penicillin G.