

ABSTRACT

Background: Secondary wound infections are a serious complication of DM due to impaired healing and uncontrolled blood sugar levels, which weaken the immune system and peripheral blood flow. *Staphylococcus aureus* is a common bacterium on the skin, divided into MRSA and MSSA based on its sensitivity. This study aims to determine the picture of MRSA and MSSA infections in DM patients with secondary wound infections.

Methods: This descriptive cross-sectional study involved 21 DM patients with secondary infection wounds from RSUD H. Abdul Manap. Samples were taken through wound swabs and interviews. Samples passed several tests such as culture test, gram staining, enzymatic test and sensitivity test. Using univariate analysis to see the frequency distribution of variables.

Results: Of the 21 samples, 77.8% were MRSA and 22.2% were MSSA. Males were more commonly infected, with 88.9% MRSA and 22.2% MSSA. Self-employed were the most common occupation infected with 22.2% MRSA, and 11.1% MSSA laborers and farmers. Low personal hygiene was noted in 55.6% MRSA cases and 11.1% MSSA cases. The lower extremities were the most commonly infected body part, with MRSA 77.8% and MSSA 22.2%. MRSA had the most diagnosed ulcers 44.4% and MSSA cellulitis (22.2%).

Conclusion: The results of bacterial identification from wound swabs of secondary infections of DM patients showed that the incidence of MRSA infection was higher than MSSA.

Keywords: diabetes mellitus, secondary wound infection, MRSA, MSSA

ABSTRAK

Latar Belakang: Infeksi sekunder pada luka merupakan komplikasi serius DM akibat gangguan penyembuhan dan kadar gula darah yang tidak terkontrol, yang melemahkan sistem imun dan aliran darah perifer. *Staphylococcus aureus* bakteri umum pada kulit, terbagi menjadi MRSA dan MSSA berdasarkan kepekaannya. Penelitian ini bertujuan untuk mengetahui gambaran infeksi MRSA dan MSSA pada pasien DM dengan luka infeksi sekunder.

Metode: Studi deskriptif *cross-sectional* ini melibatkan 21 pasien DM dengan luka infeksi sekunder dari RSUD H. Abdul Manap. Sampel diambil melalui swab luka dan wawancara. Sampel melewati beberapa uji berupa uji kultur, pewarnaan gram, uji enzimatis dan uji sensitivitas. Menggunakan analisis univariat untuk melihat distribusi frekuensi variabel.

Hasil: Dari 21 sampel, 77,8% adalah MRSA dan 22,2% adalah MSSA. Laki-laki lebih sering terinfeksi, dengan 88,9% MRSA dan 22,2% MSSA. Wiraswasta pekerjaan terbanyak yang terinfeksi MRSA 22,2%, dan MSSA buruh dan petani 11,1%. Kebersihan pribadi yang rendah dicatat pada kasus MRSA 55,6% dan kasus MSSA 11,1%. Ekstremitas bawah adalah bagian tubuh yang paling sering terinfeksi, dengan MRSA 77,8% dan MSSA 22,2%. MRSA paling banyak didiagnosis ulkus 44,4% dan MSSA selulitis (22,2%).

Kesimpulan: Hasil identifikasi bakteri dari swab luka infeksi sekunder pasien DM didapati bahwa kejadian infeksi MRSA lebih tinggi dibandingkan MSSA.

Kata Kunci: diabetes mellitus, infeksi luka sekunder, MRSA, MSSA