

Pola resistensi bakteri terhadap antibiotik pada akne vulgaris sedang dan berat di Departemen Ilmu Kesehatan Kulit dan Kelamin RS Dr. Cipto Mangunkusumo = Antibiotic resistance of bacteria isolated from moderate and severe acne vulgaris patients visiting dermatology and venereology outpatient clinics Dr. Cipto Mangunkusumo Hospital, Jakarta

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Abstrak

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Latar belakang dan tujuan. Penggunaan antibiotik pada akne vulgaris (AV) saat ini

dihadapi permasalahan resistensi *Propionibacterium acnes* (PA) dan bakteri lain yang berperan pada AV. Data pola resistensi AVS dan AVB di RS Cipto Mangunkusumo (RSCM) tahun 2006 menunjukkan adanya resistensi PA terhadap eritromisin (63,2%), klindamisin (57,9%), dan tetrasiklin (47,4%). Tidak ditemukan PA yang resisten terhadap doksisisiklin maupun minosiklin. Penggunaan antibiotik pada AV dapat menyebabkan perubahan pola resistensi sehingga penelitian ini bertujuan memberikan data terbaru mengenai pola bakteri dan resistensinya terhadap antibiotik lini pertama pada AVS dan AVB di Departemen Ilmu Kesehatan Kulit dan Kelamin RSCM, yaitu tetrasiklin, doksisisiklin, minosiklin, klindamisin dan eritromisin.

Metode. Penelitian ini merupakan penelitian deskriptif dengan desain potong lintang. Spesimen untuk kultur dan uji resistensi didapatkan dari ekstraksi komedo tertutup yang selanjutnya dibiakkan secara aerob dan anaerob. Pemeriksaan uji resistensi dilakukan secara kuantitatif dengan menggunakan MIC strip test.

Hasil. Dari 91 subjek, bakteri yang ditemukan terdiri atas PA 11,0%, *Staphylococcus epidermidis* (SE) 50,5%, *Staphylococcus aureus* (SA) 7,7% dan bakteri lain sebesar 40,7% (aerob) dan 19,8% (anaerob). Sebagian kecil PA (10%) resisten terhadap tetrasiklin, klindamisin, dan eritromisin. Tidak ditemukan PA yang resisten terhadap doksisisiklin dan minosiklin. Bakteri SE resisten terhadap eritromisin (65,2%), klindamisin (52,2%), tetrasiklin (32,6%), dan doksisisiklin (4,3%). Tidak ditemukan SE yang resisten terhadap minosiklin. Sebagian kecil SA resisten terhadap eritromisin (28,6%), doksisisiklin (14,3%) dan klindamisin (14,3%). Tidak ditemukan SA yang resisten terhadap tetrasiklin dan minosiklin.

Kesimpulan. Bakteri yang ditemukan pada pasien AVS dan AVB antara lain, *Staphylococcus epidermidis* 50.5%, *Propionibacterium acnes* 11.0%, dan *Staphylococcus aureus* 7.7%. Bakteri paling banyak ditemukan resisten terhadap eritromisin dan ketiga bakteri tersebut seluruhnya masih sensitif terhadap minosiklin.

**ABSTRACT**  
Background and objective: The resistance of *Propionibacterium acnes* (PA) and other bacteria that implicated in acne vulgaris (AV), has been a problem in AV

therapy. The latest data in the Department of Dermatology and Venereology, Cipto Mangunkusumo Hospital, Jakarta (2006) showed resistance to erythromycin (63.2%), clindamycin (57.9%) and tetracycline (47.4%), and no resistance to doxycycline and minocycline. The use of antibiotics may cause changes in susceptibility. This study aimed to provide the latest bacterial profile and resistance pattern to first-line antibiotics used in moderate and severe AV: tetracycline, doxycycline, minocycline, clindamycin and erythromycin.

**Methods:** This is a descriptive, cross-sectional study. Specimens were extracted from closed comedones and cultured in media for aerobic and anaerobic bacteria. Antibiotic resistance was measured quantitatively using MIC strip test.

**Results:** Bacteria were isolated from 91 subjects and consisted of *Staphylococcus epidermidis* (SE)(50.5%), PA (11.0%), *Staphylococcus aureus* (SA)(7.7%) and other bacteria [aerobic (40.7%) and anaerobic (19.8%)]. A small number of PA (10%) was resistant to tetracycline, clindamycin, and erythromycin but not to doxycycline and minocycline. SE was resistant to erythromycin (65.2%), clindamycin (52.2%), tetracycline (32.6%), and doxycycline (4.3%) but not to minocycline. A small number of SA was resistant to erythromycin (28.6%), doxycycline (14.3%) and clindamycin (14.3%) but not to tetracycline and minocycline.

**Conclusion:** Bacterial profile in moderate and severe acne vulgaris consisted of *Staphylococcus epidermidis* 50.5%, *Propionibacterium acnes* 11.0%, and *Staphylococcus aureus* 7.7%. Bacteria were commonly resistant to erythromycin, but still completely sensitive to minocycline.

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