



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

## **BACTERIAL PATTERN FROM PUSTULAR LESIONS OF ACNE VULGARIS PATIENTS IN DR. HASAN SADIKIN GENERAL HOSPITAL, BANDUNG, INDONESIA**

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**Introduction:** Acne vulgaris (AV) is one of the most prevalent disorders in the dermatology field, making a significant psychological impact. Understanding the pathogenesis of AV involves many aspects including bacterial factors. Several studies demonstrated bacteria other than *Propionibacterium acnes*, may also play role in acne pathogenesis. There was still limited data of bacterial pattern from acne lesions in Indonesia.

**Objective:** To determine bacterial pattern from pustular lesions of AV patients in Dr. Hasan Sadikin General Hospital, Bandung, Indonesia.

**Materials and methods:** A descriptive observational study with cross-sectional design was conducted from January 2018 to February 2018. The subjects were 30 AV patients from Dermatology and Venereology out-patient Clinic. The samples were obtained from pustules, followed with visualization by Gram staining and cultured for aerobic and anaerobic bacteria, using blood agar and Mac-Conkey media. For the growing bacteria on cultures were identified using standardized automated microbial identification procedures.

**Results:** All of 30 subjects showed positive bacterial cultures, in a total of 53 isolates. The aerobic culture were positive in 26 subjects, whereas anaerobic culture in 27 subjects. Gram-positive aerobic bacteria isolated were *Staphylococcus epidermidis* (32.1%), *Staphylococcus hominis* spp *hominis* (7.5%), *Staphylococcus capitis* (1.9%), *Staphylococcus auricularis* (1.9%), and *Staphylococcus lugdunensis* (1.9%). Gram-negative aerobic bacteria were *Citrobacter koseri* (1.9%) and *Pseudomonas aeruginosa* (1.9%). Gram-positive anaerobic bacteria isolated were *Propionibacterium acnes* (45.3%), *Actinomyces odontolyticus* (1.9%), and *Peptostreptococcus anaerobius* (1.9%)

**Conclusions:** This study showed diversity of bacterial population residing from pustular lesions in AV patients of Dermatology and Venereology Department Dr. Hasan Sadikin General Hospital, Bandung, Indonesia were consisted of Gram-positive and -negative aerobic, and Gram-positive anaerobic bacteria. The predominant isolates were





Propionibacterium acnes followed by Staphylococcus epidermidis.

