Pola Penggunaan, Uji Sensitivitas Antibiotik, dan Pola Bakteri Red Complex pada Sampel Cairan Saku Gusi Pasien Periodontitis di Unit Pelayanan Periodonsia RSKGM FKG UI Periode Januari-Juni 2024 = The Pattern of Antibiotic Use, Antibiotic Sensitivity Testing, and Red Complex Bacterial Profiles in Gingival Crevicular Fluid Samples from Periodontitis Patients at the Periodontal Care Unit of RSKGM FKG UI January-June 2024

Hanin Assa Adinda, author

Abstrak

Latar Belakang: Penggunaan antibiotik secara irrasional dapat memicu resistensi antibiotik. Dokter gigi, sebagai profesi yang banyak meresepkan antibiotik untuk mengatasi infeksi oral berperan penting dalam upaya mencegah terjadinya resistensi antibiotik dengan cara membatasi penggunaan antibiotik. Tujuan: Mengevaluasi pola penggunaan dan uji sensitivitas antibiotik di unit pelayanan Periodonsia RSKGM FKG UI periode Januari—Juni 2024. Metode: Studi deskriptif observasional dari resep antibiotik berbagai unit pelayanan dikumpulkan dari unit Farmasi, lalu dievaluasi nilai Prescribed Daily Dose (PDD) dan rasio PDD/DDD sesuai standar WHO. Sensitivitas antibiotik diuji dengan metode disk diffusion (Kirby-Bauer), sementara pola bakteri dianalisis menggunakan Real Time Quantitative PCR. Hasil: Antibiotik yang paling banyak diresepkan adalah Co Amoxiclav 625 mg (59,88%) dan Amoxicillin 500 mg (27,95%). Rasio PDD/DDD antibiotik Amoxicillin, Co Amoxiclav, Clindamycin, Metronidazole, dan Ciprofloxacin termasuk kategori subuse (PDD/DDD<1). Uji sensitivitas menunjukkan Co Amoxiclav, Amoxicillin, dan Clindamycin masih efektif, sedangkan Metronidazole resisten. RT-qPCR dapat mendeteksi bakteri red complex pada sampel cairan saku gusi, dengan proporsi lebih tinggi pada kelompok periodontitis dibandingkan sehat. Kesimpulan: Antibiotik yang paling banyak diresepkan adalah Co Amoxiclav dan Amoxicillin. Semua antibiotik yang dievaluasi masih sensitif. Bakteri red complex dapat terdeteksi pada sampel cairan saku gusi dengan proporsi yang lebih besar pada sampel periodontitis dibandingkan sehat. .....Background: Irrational antibiotic use can trigger antibiotic resistance. Dentists, as frequent prescribers of antibiotics for oral infections, play a crucial role in preventing resistance by limiting antibiotic use. Objectives: To evaluate antibiotic prescribing patterns and sensitivity testing in the Periodontal Care Unit of RSKGM FKG UI from January–June 2024. Methods: An observational descriptive study evaluated antibiotic prescriptions collected from the Pharmacy Unit. Prescribed Daily Dose (PDD) and PDD/DDD ratios were evaluated according to WHO standards. Antibiotic sensitivity was tested using the disk diffusion (Kirby-Bauer) method, and bacterial patterns were analyzed using Real-Time Quantitative PCR. Results: The most prescribed antibiotics were Co-Amoxiclav 625 mg (59.88%) and Amoxicillin 500 mg (27.95%). PDD/DDD ratios for Amoxicillin, Co-Amoxiclav, Clindamycin, Metronidazole, and Ciprofloxacin, indicated subuse (PDD/DDD <1). Sensitivity testing revealed that Co-Amoxiclav, Amoxicillin, and Clindamycin remained effective, while Metronidazole showed resistance. RT-qPCR detected red complex bacteria in gingival crevicular fluid samples, with higher proportions in periodontitis compared to healthy groups. Conclusion: Co Amoxiclav and Amoxicillin were the most prescribed antibiotics. All evaluated antibiotics remained sensitive. Red complex bacteria were detected in higher proportions in periodontitis

samples compared to healthy ones.