

Abstracts of current literature on epidemiology, diagnosis, and treatment

Series Editor: Jihad Slim, MD

AGE PREVALENCE OF HPV INFECTION IN HIV-NEGATIVE MEN WHO HAVE SEX WITH MEN

To determine the prevalence and determinants of anal human papillomavirus (HPV) infection in HIV-negative men who have sex with men (MSM), investigators recruited 1218 HIV-negative MSM aged 18 to 89 years from 4 US cities. HPV DNA was found in the anal canal of 57% of participants. HPV prevalence did not vary with age or geographic location. Anal HPV infection was independently associated with receptive anal intercourse (odds ratio [OR], 2.0 [95% confidence interval {CI}, 1.5–2.8]; $P < 0.0001$) during the preceding 6 months and with more than 5 sex partners within the previous 6 months (OR, 1.4 [95% CI, 1.1–1.9]; $P < 0.0001$). The prevalence of all high-risk HPV types (ie, those causative of anal cancer) was 26%; HPV 16, which is strongly linked with invasive and cervical cancer, was the most common type with a prevalence of 12%. Urban, HIV-negative MSM have a stable, high prevalence of anal HPV infection across all age-groups, which sharply varies from the epidemiologic profile of cervical HPV infection in women. Behavioral differences between these populations may explain these results.

Chin-Hong PV, Vittinghoff E, Cranston RD, et al. Age-specific prevalence of anal human papillomavirus infection in HIV-negative sexually active men who have sex with men: the EXPLORE study. J Infect Dis 2004;190:2070–6.

ANTIMICROBIAL REGIMENS FOR TREATING ACNE

Researchers randomized 649 UK patients with mild to moderate facial acne to 5 different antimicrobial regimens to compare their efficacy and cost-effectiveness as well as to determine if propionibacterial antibiotic resistance affects treatment response. Primary outcomes for efficacy were participants reporting moderate acne improvement and reduction of inflamed facial lesions. Patients were assessed at 6, 12, and 18 weeks. Results for moderate improvement are as follows: 55% (72/131) of patients using oral oxytetracycline with topical placebo, 54% (70/130) of patients using oral minocycline with topical placebo, 60% (78/130) of patients using topical benzoyl peroxide with oral placebo, 66% (85/127) of patients using combination topical erythromycin/benzoyl peroxide with oral placebo, and 62% (82/131) of patients using topical erythromycin and benzoyl peroxide separately with oral placebo. Treatment differences for the proportion of patients with at least moderate improvement were: oral minocycline versus oral oxytetracycline, –1.2% (unadjusted 95% CI, –13.3 to 10.9); combination topical erythromycin/benzoyl peroxide versus oxytetracycline, 11.1% (unadjusted 95% CI, –0.7 to 22.9) and versus minocycline, 12.3% (unadjusted 95% CI, 0.4 to 24.2); separate topical erythromycin and ben-

zoyl peroxide versus combination topical erythromycin/benzoyl peroxide, –3.5% (unadjusted 95% CI, –15.2 to 8.2); topical benzoyl peroxide versus oral oxytetracycline, 5.0% (unadjusted 95% CI, –7.0 to 17.0), versus oral minocycline, 6.2% (unadjusted 95% CI, –5.8 to 18.2), and versus combination topical erythromycin/benzoyl peroxide –6.1% (unadjusted 95% CI, –17.9 to 5.7). Topical benzoyl peroxide was the most cost-efficient treatment. Efficacy of both tetracyclines was reduced by pre-existing tetracycline resistance. Topical benzoyl peroxide and combination erythromycin/benzoyl peroxide are similar in efficacy to oral tetracycline and minocycline and are not affected by propionibacterial antibiotic resistance.

Ozolsins M, Eady EA, Avery AJ, et al. Comparison of five antimicrobial regimens for treatment of mild to moderate inflammatory acne vulgaris in the community: randomised controlled study. Lancet 2004;364:2188–95.

BURDEN OF INFECTION IN LONG-TERM DIALYSIS PATIENTS

Investigators conducted a retrospective review to examine the spectrum of infection in end-stage renal disease (ESRD) patients receiving dialysis (N = 433) between 1992 and 2003. Patients had 424,700 days of dialysis experience. During this period, 2412 episodes of infections were treated at a rate of 5.7 episodes per 1000 days of dialysis. Infections were primarily acquired in the community (82% [1971 episodes] versus 18% [441 episodes] nosocomial). Of community-acquired infections, 868 episodes (44%) resulted in hospitalization. Bacterial profiles of patients with community-acquired and nosocomial infections were similar. Dialysis-related infections (24%; 20.5% occurred at the dialysis access site), infections below the knees (19.3%), pneumonia (13%), and soft-tissue infections (9%) were the most common infections. Infection rates were higher in patients with diabetes-related ESRD (6.72 versus 4.79 per 1000 dialysis days). Patients received 5111 courses of antibiotics over 42,627 days of treatment, cumulatively accounting for approximately 10% of total days in the study. ESRD patients have a tremendous burden of infection; however, most infections are not associated with long-term dialysis use. Frequent and long-term antibiotic use and cohorting of patients in the dialysis unit have altered the patients' microbial flora which has clinical and epidemiologic implications.

Berman SJ, Johnson EW, Nakatsu C, et al. Burden of infection in patients with end-stage renal disease requiring long-term dialysis. Clin Infect Dis 2004;39:1747–53.

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