Online-Only Abstracts

Comparison of Photodynamic Therapy versus conventional antifungal therapy for the treatment of denture stomatitis: a randomized clinical trial


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Original Submission: 12 February 2012; Revised Submission: 6 April 2012; Accepted: 22 May 2012
Editor: E. Roilides

Article published online: 30 May 2012
10.1111/j.1469-0691.2012.03933.x

Abstract

In this randomized clinical trial, the clinical and mycological efficacy of Photodynamic Therapy (PDT) was compared with that of topical antifungal therapy for the treatment of denture stomatitis (DS) and the prevalence of Candida species was identified. Patients were randomly assigned to one of two groups (n = 20 each): in the nystatin (NYT) group patients received topical treatment with nystatin (100 000 IU) four times daily for 15 days and in the PDT group the denture and palate of patients were sprayed with 500 mg/L of Photogem/C210, and after 30 min of incubation, were illuminated by light emitting-diode light at 455 nm (37.5 and 122 J/cm2, respectively) three times a week for 15 days. Mycological cultures taken from dentures and palates and standard photographs of the palates were taken at baseline (day 0), at the end of the treatment (day 15) and at the follow-up time intervals (days 30, 60 and 90). Colonies were quantified (CFU/mL) and identified by biochemical tests. Data were analysed by Fisher’s exact test, analysis of variance and Tukey tests and χ2 test (α = 0.05). Both treatments significantly reduced the CFU/mL at the end of the treatments and on day 30 of the follow-up period (p <0.05). The NYT and PDT groups showed clinical success rates of 53% and 45%, respectively. Candida albicans was the most prevalent species identified. PDT was as effective as topical nystatin in the treatment of DS.

Antifungal therapy in European hospitals: data from the ESAC point-prevalence surveys 2008 and 2009

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Original Submission: 28 March 2012; Revised Submission: 7 June 2012; Accepted: 12 June 2012
Editor: E. Roilides

Article published online: 4 July 2012
10.1111/j.1469-0691.2012.03973.x
Abstract

The study aimed to identify targets for quality improvement in antifungal use in European hospitals and determine the variability of such prescribing. Hospitals that participated in the European Surveillance of Antimicrobial Consumption Point Prevalence Surveys (ESAC-PPS) were included. The WHO Anatomical Therapeutic Chemical (ATC) classification for ‘antimycotics for systemic use’ (J02) 2009 version was used. Demographic data and information about indications and diagnoses were collected in 2008 and 2009. From 99 053 patients, 29 324 (29.6%) received antimicrobials. Antifungals represented 1529 of 40 878 (3.7%) antimicrobials. Antifungals were mainly (54.2%) administered orally. Hospital-acquired infections represented 44.5% of indications for antifungals followed by medical prophylaxis at 31.2%. The site of infection was not defined in 36.0% of cases but the most commonly targeted sites were respiratory (19.2%) and gastrointestinal (18.8%). The most used antifungal was fluconazole (60.5%) followed by caspofungin (10.5%). Antifungal–antibacterial combinations were frequently used (77.5%). The predominance of fluconazole use in participating hospitals could result in an increase in prevalence of inherently resistant fungi, increasing the need for newer antifungals. Although acknowledging that antifungal prophylaxis in the immunocompromised host needs further exploration, repetitive surveys using ESAC-PPS methodology may help to monitor the effects of interventions set to regulate antifungal use.