

**Conclusion:** Filamentous fungi such as *Aspergillus* spp and *Fusarium* spp are the most common causative agents of fungal eye infections in this setting. Consideration should be given to the reviewing of the first line empiric agents used for treatment of clinically diagnosed fungal eye infections locally. Empiric agents to consider should include agents demonstrating high in-vivo activity against moulds. Topical natamycin should be considered as first line for cases of fungal keratitis while voriconazole should be considered in cases of endophthalmitis. Continued surveillance is necessary to identify the introduction of other agents e.g. yeasts such as *Candida* spp, commonly found in other locations.

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#### Oral candidiasis in patients with type II Diabetes: Comparison of a novel multiplex PCR and chromagar in species identification



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**Background:** Diabetes mellitus is a global epidemic. Oral candidiasis is being frequently recognized in diabetic patients, due to elevated glucose in their oral fluids and immune dysfunction. Oral candidiasis is associated with multiple pathogens including *C.albicans*, *C.parapsilosis*, *C.glabrata* and *C.tropicalis*. The aim of this study was to evaluate a multiplex PCR as a rapid diagnostic tool for identification of above four oral *Candida* pathogens.

**Methods & Materials:** A multiplex PCR was optimized to identify *C.albicans*, *C.parapsilosis*, *C.glabrata* and *C.tropicalis* in concentrated oral rinse samples of patients with diabetes, attending the Endocrinology clinic at Colombo South Teaching hospital, Sri Lanka. Common reverse primer, ITS4 and four species specific forward primers targeting ITS 1 and ITS2 regions of yeast genome (primer CA, CT, CP, and CGL respectively) were used. Oral rinse samples (n = 100) were used to compare between multiplex PCR and phenotypic identification.

**Results:** Out of the 100 oral rinse samples, 77 were culture positive and of these 44 were colonized (> 600 CFU/ml). Multiple *Candida* species including *C.albicans*, *C.parapsilosis* and *C.tropicalis* were identified in 33 of the colonized samples. Eighty two patients were positive for *Candida* by multiplex PCR and of them 47 had multiple *Candida* species. All 44 colonized specimens were also positive by multiplex PCR. *C.albicans* was the most predominant organism (73/82) followed by *C.parapsilosis* (46/82), *C.tropicalis* (16/82) and *C.glabrata* (6/82). In specimens with multiple species, the two most common organisms were *C.albicans* and *C.parapsilosis*.

Out of the 61 *Candida* isolates that were germ tube negative, 15 isolates were identified as *C.albicans* by the typical green colour on CHROMagar. However two out of fifteen isolates were negative for *C.albicans* by multiplex PCR indicating that results of CHROMa-

gar should be interpreted cautiously. Further *C.glabrata* could not be identified using phenotypic identification but was identified by multiplex PCR. Multiplex PCR yielded a sensitivity of 10 *Candida* cells/ml of oral rinse sample.

**Conclusion:** Multiplex PCR is found to be rapid, highly sensitive and specific than phenotypic identification methods in discriminating multiple *Candida* species directly in oral rinse specimens.

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#### Epidemiological and etiological diagnosis of suppurative keratitis in Vadodara, Gujarat, India



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**Background:** Corneal blindness is a major public health problem in India and infections constitute a major cause, second only to cataract. The purpose of this study was to identify the specific organisms responsible for suppurative keratitis, and to determine the risk factors predisposing to suppurative keratitis in Vadodara, Gujarat.

**Methods & Materials:** All patients with suspected suppurative corneal ulceration presenting between 1st January 2014 to 30th November 2014 to Ophthalmology department at S.S.G. Hospital, Vadodara were evaluated. The corneal scrapings were performed for cultures and smears by using standard protocols and information pertaining to risk factors was recorded.

**Results:** In the 11 months period, 66 patients with suspected corneal ulceration were evaluated. Corneal cultures were found to be positive in 33 (50%) patients. Of the 66 patients, 19 (28.70%) were diagnosed as bacterial keratitis and 14 (21.30%) as fungal keratitis. The most common fungal pathogen isolated was *Aspergillus* spp, representing (42%) of all positive fungal cultures, followed by *Candida albicans* (21%). The predominant bacterial pathogen isolated was *Staphylococcus aureus* representing (31.57%) of all positive bacterial cultures, followed by *Pseudomonas* spp (21.07%).



**Alternaria species**