

Epithelial loss correlated with decreased beta defensins and increased risk of candida infections in Oral Lichen Planus

Jeyaseelan Augustine¹, Chiranjit Maity², Priya Kumar¹, Shalini Gupta¹, Dipankar Ghosh², Mahesh Verma¹

¹Maulana Azad Institute of Dental Sciences, New Delhi, India

²Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi, India

OBJECTIVE:To correlate epithelial erosion with beta defensin expression in OLP and risk for Candida infections

STUDY DESIGN:Sample biopsy tissues from 35 cases of clinical OLP vs. appropriate controls were statistically analyzed for beta-defensin expression using quantitative PCR (Q-PCR) and immunohistochemistry.

RESULTS:Beta defensins expression was correlated with epithelial integrity in OLP. Loss of epithelial cells due to erosion resulted in concomitant decrease in beta defensins and increased Candida biofilms in vitro.

CONCLUSIONS:Despite transcriptional upregulation of defensin expression in OLP; the loss of epithelial cells in erosive OLP cohorts results in concomitant decrease in defensin and higher risk of Candida infections. Pre-emptive anti-Candida therapy is advised in erosive OLP.