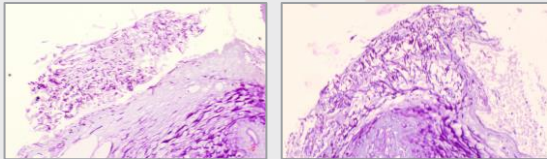


# Pathogenic Implications of Candidal Species in Both Oral Cancer and Oral Potentially Malignant Disorders - A Review

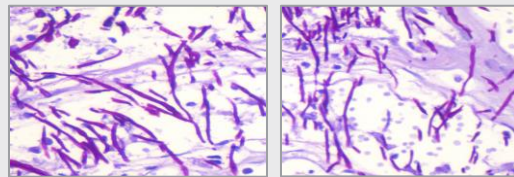
**Authors:** Dominic Augustine, Sowmya SV, Kuntala Mondal

**Background:** Oral squamous cell carcinoma (OSCC) is the 6<sup>th</sup> most common cancer in worldwide. Cigarette smoking, alcohol consumption, and betel quid chewing are its major risk factors other factors that can lead to OSCC include excessive sun exposure, viral or fungal infection, poor nutrition, and poor oral hygiene. Most OSCC cases are preceded by clinically evident oral potentially malignant disorders (OPMDs). The aim of this review is to correlate the association between Candida species and oral potentially malignant disorders and its possible mechanisms in oral cancer progression.

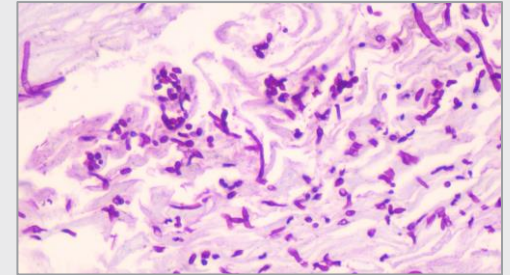


10x H & E view of Candidal Hyphae from Oral Epithelial Dysplasia  
Image Courtesy: Dept of Oral Pathology, FDS, Ramaiah University

**Search Results:** The mouth is an important source of infections that may even be associated with mortality. Candida albicans, a most common opportunistic pathogen which is the predominant genus among the yeasts of the oral cavity. Candida though a commensal, can also cause oral mucosal infections in immunocompromised situations which are frequently seen in older individuals, infants, people infected with HIV, and individuals with cancer. Certain strains of Candida albicans and other yeasts play a causal role in the development of oral cancer by means of endogenous nitrosamine production.



40x H & E view of Candidal Hyphae from Oral Epithelial Dysplasia  
Image Courtesy: Dept of Oral Pathology, FDS, Ramaiah University



40x H & E view of Candidal Hyphae from Oral Cancer Tissue  
Image Courtesy: Dept of Oral Pathology, FDS, Ramaiah University

**Conclusion:** The association of Candida with premalignant states has been studied extensively and many authors have shown an increase in Candida colonization in these lesions as compared to controls. Candida infections have been associated with oral epithelial dysplasia and neoplasia.