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"STUDY OF ANTIFUNGAL SUSCEPTIBILITY PROFILE OF CANDIDA ISOLATES FROM ORAL SQUAMOUS CELL CARCINOMA PATIENTS UNDERGOING RADIOTHERAPY"

By

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ABSTRACT

Background & Objectives

Oral colonization and infection with *candida* are common in patients receiving therapy for head and neck radiation. The emergence of non-*candida* albicans apart from the *Candida albicans* is increasing. Thus, evaluation of various *Candida* and Non-*Candida* species with antifungal susceptibility to antifungal drugs is essential for effective treatment.

Methods

Unstimulated whole saliva was collected from OSCC patients taken during the time of diagnosis, after surgery and before & during radiotherapy. Age and sex matched controls were included with and without tobacco chewing habit. Samples were subjected for microbiological and antifungal susceptibility analysis. The frequency of isolation (FOI), colony forming units (CFU) and the various species identified were subjected to Fishers Exact test, one way Analysis Of Variance (ANOVA) and Post Hoc Test- Scheffe's test appropriately.

Results

The frequency of isolation significantly ($p=0.00$) increased between group IV and group V & group VI. The colony forming units significantly increased between group I, group II, group III and group V & group VI ($p=0.002$, 0.00 & 0.00 respectively). Non-*Candida albicans* isolated in lesional groups were more than group I & group II. Variable results were obtained in antifungal tests.

Conclusion

Candidal carriage increased in post-surgical and late radiation periods with colonization only showing a gradual increase. Non-*Candida albicans* add to the diverse colonization of oral cavity during radiation. Antifungal profiling was inconclusive.

Keywords: oral squamous cell carcinoma; radiotherapy; *Candida* species, Antifungal susceptibility.