

Factors Associated with Oral Cavity Colonization by *Candida albicans*

Authors : Nwafia Ifeyinwa Nkeiruka, Nwafia Walter Chukwuma

Abstract : Since the early 1980's fungi have emerged as major causes of human diseases, especially among immunocompromised. The most commonly isolated yeast is *Candida albicans* and constitutes the 4th most common nosocomial BSI in humans. It is progressive and cumulative and become more complex over time. It can even lead to leaky gut syndrome that causes food and environmental allergies. It is worthy of note that all the available data on oral *Candida* risk factors in humans were documented essentially using data from studies conducted in other areas, hence there is need for comparative and complementary information from the South eastern part of Nigeria. Method: 200 subjects of all age groups of both sexes were randomly examined, by swabbing their palatine mucosa and dorsal tongue with sterile cotton wool, then cultured into Sabouraud dextrose agar plates supplemented with antibiotics and incubated aerobically at 37 degree for 48 hrs. Identification of *Candida albicans* was done by germ tubes tests, chlamyospores production on cornmeal agar supplemented with 1% Tween 80. Sugar and nitrogen assimilation test using API 20C Auxanogram and potassium nitrate agar. Results: Out of 30 samples that were positive for candida, 15 (50%) were *Candida albicans*. Using the anova test ($P < 0.05$) this variation is significant ($P = 0.016$). followed by *C. dublinensis* 3 (13%), *C. tropicalis* 3 (10%), *C. pseudotropicalis* 3 (10%), *C. glabrata* 2 (7%), *C. parapsilosis* 2 (7%) and lastly *C. krusei* 1 (3%). However, 53% of the patients were female while 47% were male. Among the HIV positive isolates, 67% were HIV isolates not on drugs while 33% positive isolates were on drugs and the percentages of candida species in these patients were as follows *C. albicans* were 45% followed by *C. glabrata* and *C. tropicalis* which were 17% each, *C. parapsilosis*, *C. dubliensis* and *C. pseudotropicalis* were all 8% each. Conclusion: Oral Candidiasis is a marker of systemic diseases and in some cases, it may be the first clinical presentation. There is need for more intensive clinical and laboratory monitoring and possible early intervention to prevent the reoccurrence and resistance to treatment.

Keywords : oral cavity, *Candida* species, oral Candidiasis, risk factors

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