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Research Article

**ASSESSMENT OF DIFFERENCES IN CANDIDA GROWTH
BEFORE AND AFTER THE INSERTION OF COMPLETE
DENTURES**¹Dr Sherwali Khan, ²Dr Hafiza Farah Deeba, ³Dr Rida Yasin¹Hamdard College of Medicine and Dentistry Hamdard University Karachi, ²DHQ Teaching Hospital Sahiwal, ³BHU Aghapur.

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Abstract:

Background: The factor that is considered susceptible for an oral candida is denture wearing. For esthetic recovery and functional recovery, dental prosthesis is very significant especially after losing natural teeth.

Objective: The objective of this study was to check the differences in candida growth prior and post the insertion of complete dentures.

Material and methods: This research study was conducted in Mayo Hospital, Lahore (February 2017 to March 2018). In this study, total of forty patients were included. These patients were wearing a complete denture. The patients were not allowed to eat and drink anything. On this condition, they were instructed to use 10ml of saline to rinse their mouth. The ring was centrifuged, for assessment, the remaining stuff was sent to Microbiology Laboratory SPSS was used for data entry and assessment.

Results: The results showed that in all patients the measure of candida was zero at the time of insertion. However, oral candida establishment was noticed in 35% of the cases after 30 days of wearing a denture, ($P=0.000$).

Conclusion: The outcomes concluded that after complete denture wearing, there observed a valuable qualitative increase in the candida measurement. For the working and esthetic recovery, dental implantation is very crucial after losing original teeth.

Keywords: Dentures, Candida and Oral Cavity.

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INTRODUCTION:

In adults, it is estimated that the necessity of prosthesis is increased to 37.2% by 2020 [1]. The most frequently occurring denture stomatitis influencing the palatal mucosa. A hard layer of microbes along with metabolites is referred to as plaque. Besides an increase in a number of Candida species, a microbial association of a dental implant and dental plaque is similar [2]. In humans, the pathogen is more likely caused by candida albinos [3, 4]. It is mostly found gastrointestinal tract, skin, female genital tract and oral cavity of humans. Candidiasis in the mouth can also occur due to dentures. It includes stomatitis and thrush. For disseminated infection, living place is provided by the microorganisms found in the dental plaque [5, 6]. Gastrointestinal pleura- pulmonary infections also occur due to Candida species [7]. The factor that is considered susceptible to oral candidiasis is denture wearing. Even after oral hygiene, the factors that are responsible for a stay of microorganisms on a denture are roughness of denture and irregularities of the surface. Due to this reason, the palate is regularly occurring [8, 9]. Higher frequency of colonization of oral candida is responsible for unsatisfactory prosthesis hygiene [10]. The objective of this study was to check the differences in candida growth prior and post the insertion of complete denture.

MATERIALS AND METHODS:

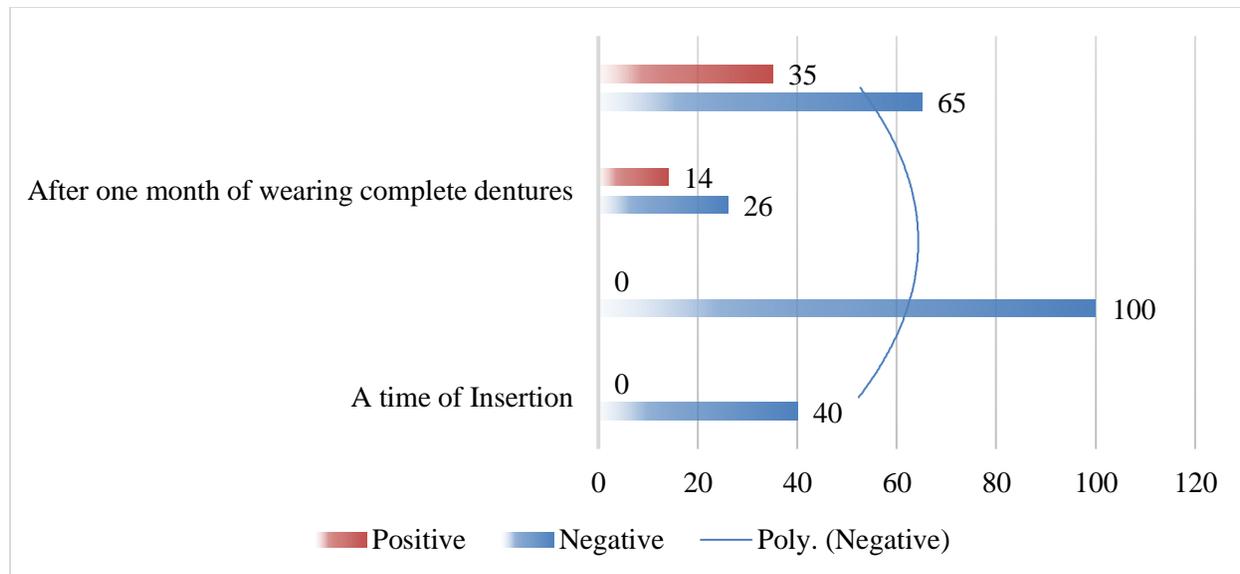
This research study was conducted in Mayo Hospital, Lahore (February 2017 to March 2018). The time period check in candida growth prior and post the insertion of complete dentures non-parametric sign test was used. SPSS was used for data assessment and entry. The value of P was taken significant ie P=0.05.

RESULTS:

For this study, total of forty patents were selected. These patients were first tied experiencing the complete dentures. Out of forty patients, the number of males and females was 20 (50%) and 20 (50%) respectively with 1:1 male to female ratio. The average age in patients was (58.90 ± 4.3) years. The age of the majority of the patients (60%) was between 50 – 65 years. The results showed that in all patients, the measure of candida was zero at the time of insertion. However, 9 (22.5%) patients have above 3000 counts and 5 (12.5%) have 200 to 3000 candida count. The outcomes showed that after complete denture wearing, there observed a valuable qualitative increase in the candida measurement after one month.

Table: Comparison of presence of candida at the time of insertion and after one month of wearing complete Dentures

Candida outcome	A time of Insertion		After one month of wearing complete dentures		P-Value
	Number	Percentage	Number	Percentage	
Negative	40	100	26	65	0.0001
Positive	0	0	14	35	



DISCUSSION:

Oral rinse method was employed for sampling for candida in the oral cavity. This method has been used on a large scale. In another such study, buccal rinse method and imprint culture were compared for identification of microorganisms. In this study, it was shown that for the isolation of yeast, oral rinse technique is more suitable. The reactivity of this technique was proved. For the assessment of the whole candida carriage, this method was considered ideal. It is concluded by the results of this study that candida carriage is remarkably increased by wearing complete dentures. These results were also similar to another study Alkumra and Beydemir [11 – 13]. Conducted a study in which it was observed that candidal carrier rate is significantly increased by the removable partial or wearing denture. Our results are similar to this study. In the study conducted by Coelho et al [14], an important connection between candida colony forming unit count and denture type was observed. The occurrence of candida Albicans in 230 complete denture wearers was assessed by Abu Alateen and Abu-Elteen [15].

DISCUSSION:

The outcomes of the study showed that after complete dental wearing, there observed a valuable qualitative increase in the candida measurement.

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