

The Frequency of *Candida Albicans* in the Oral Cavity of Patients with Major Thalassemia and Normal Individuals

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Abstract

Background and objectives: *Candida albicans* is a normal flora in skin and mucosa and is not pathogen in normal individuals. The main defence against yeasts, particularly *Candida*, is phagocytes, but phagocytosis and opsonization are reduced in thalassemia.

The aim of this study was the determination of the frequency of *Candida albicans* and its species in the oral cavity of patients with major thalassemia and normal individuals.

Material and Methods: This descriptive –analytic study was conducted on 52 patients with major thalassemia and 104 normal individuals in Hamadan, 2009. The specimens from oral cavity of the patients and control group were taken by sterile swab and then the direct exam and culture of all specimens were done.

Results: The *Candida* species in patients with thalassemia are *Candida albicans* (32.7%), *tropicalis* (13.5%), *glabrata* (10.5%), *guilliermondii* (10.9%) and *Krusei* (10.9%). In normal individuals, the frequency is 17.3% for *albicans*, 3.8% for *tropicalis*, 1% for *glabrata* and 1% for *kefyr*. Fifty-nine percent of the subjects undergone splenectomy and 23% of those with healthy spleen have

Candida in their oral cavity, this difference is statistically meaningful.

Conclusion: The results show that suffering from thalassemia and splenectomy can increase the possibility of oral infection by *Candida* species.

Key words: Major thalassemia, *Candida albicans*, Oral Cavity.