

***Oral Manifestations, Biochemical, and IL-6 Analysis of Saliva in Major Depressive Disorder Patients under Treatment***

*A thesis*

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## ***Abstract***

**Background:** Major depressive disorder (MDD) is mental disorder characterized by an all-encompassing low mood accompanied by low self-esteem, and by loss of interest or pleasure in normally enjoyable activities. An antidepressant is a psychiatric medication used to alleviate mood disorders, such as major depression.

**Aims of the study:** The aims of this study was to determine the prevalence of oral manifestation among patients with major depressive disorder receiving antidepressant drugs, and detect the enzymes levels in unstimulated saliva including alkaline phosphatase (ALP), Total Salivary proteins (TSP), and Interleukin-6 (IL-6) in relation to MDD patients under treatment and to compare with healthy controls.

**Subjects, materials and methods:** The study sample consists of (50) MDD patients; between the ages of 20 years and 60 years, receiving treatment for more than 1 month, 20 healthy control group of both sex. The depression patients are divided into (25) patients under treatment with fluoxetine (Prozac), and (25) patients under treatment with imipramine (Tofranil). The depression patients are diagnosed according to Hamilton depression scale used in the department of psychiatry in Al-Yarmouk Teaching Hospital by a psychiatric specialist; they were examined from the period (6-12-2011----17-3-2012).

**Results:** The most frequent oral manifestations in the patients with MDD, in this study were burning mouth syndrome (72%), and dry mouth (70%), while metallic taste (48%) was fairly frequent. The prevalence of oral manifestations was more common in males than females. Burning mouth syndrome, and metallic taste were more frequent in patients with Prozac treatment, while dry mouth was more frequent in patients with Tofranil treatment. A significant relationship of TSP in MDD patients receiving treatment as compared to health control. However, slightly increased levels of IL-6, and ALP in MDD patients receiving treatment as compared to healthy control, but no statistically relationship were established. When comparing the levels of IL-6, ALP, and TSP between MDD patients receiving Tofranil and those receiving Prozac slight elevations were found with no statistical significance.

**Conclusion:** The most frequent oral manifestations in MDD patients were burning mouth syndrome, then dry mouth and metallic taste. The prevalence of oral manifestations was more common in males than females, and increased

within long duration of treatment. High levels of total salivary protein, alkaline phosphatase enzymes, and interleukin-6 in MDD patients receiving treatment than healthy control; therefore frequent oral examination of patients with MDD is mandatory, and these patients should be a major concern in dental practice.