

**Ministry of Higher education
&Scientific Research
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College of Dentistry**



Oral Health Condition among Patients with Thyroid Disorders Attending Different Hospitals in Baghdad City\ Iraq

A Thesis

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Abstract

Background: Thyroid dysfunction is the second most common glandular disorder of the endocrine system. Thyroid gland regulates the metabolism and affects the functions of the body and also affects many systems of the body, including the oral cavity which affected adversely by either a deficiency or excess of these hormones.

Aim of study: The present study carried out among patients with thyroid disorders (hypothyroidism, hyperthyroidism and symptomatic patients) to investigate the occurrences of the following oral variables: (caries experience, periodontal health condition) and to evaluate the impact of disease and treatment on the oral variables in different time intervals.

Subjects, materials and methods: The study population consisted of (404) patients. Clinical examinations were conducted under standardized conditions for all the samples. Diagnosis and recording of dental caries was according to the criteria of Decayed-Missing-Filled index by WHO (1997). Diagnosis of periodontal health condition was according to the criteria of Community Periodontal Index (WHO, 1997)

Results: The results of this study found that, long duration hypothyroid were recorded (196) patients, long duration hyperthyroid (70) patients, newly diagnosed hypothyroid (32) patients, newly diagnosed hyperthyroid (33) patient, in addition, (73) symptomatic patients with normal laboratory thyroid function test at the time of diagnosis.

Results found a higher female prevalence of patients than male, with high prevalence of sample at age group (40-49) years, and high prevalence of hypothyroid than hyperthyroid patients. In addition, the total mean values of caries experience

(DMFS) among hyperthyroid group were (36.631 ± 2.659), hypothyroid group (38.101 ± 2.235), and symptomatic group (30.973 ± 3.830) without statistically significant differences ($P > 0.05$) between groups. Caries experience increased with advancing age with highly statistically significant differences ($p < 0.01$) in all components except for (DS). and the mean value of DMFT and DMFS increased with increase the duration of illness in both hypothyroid and hyperthyroid group with no statistically significant difference.

In addition, the mean value of healthy gingiva among hypothyroid group was (1.04 ± 0.08), gingival bleeding ($.59 \pm 0.05$), dental calculus (2.54 ± 0.11), shallow pockets (1.09 ± 0.08), deep pockets ($.30 \pm 0.05$) excluded sextants ($.42 \pm 0.07$). For hyperthyroid group, the mean value of healthy gingiva was (1.01 ± 0.11), gingival bleeding ($.73 \pm 0.10$), dental calculus (2.71 ± 0.15), shallow pockets ($.98 \pm 0.11$), deep pockets ($.21 \pm 0.07$), excluded sextants ($.30 \pm 0.09$). For symptomatic group, the mean value of healthy gingiva was (1.26 ± 0.16), gingival bleeding ($.66 \pm 0.08$), dental calculus (2.49 ± 0.19), shallow pockets ($.88 \pm 0.13$), deep pockets ($.21 \pm 0.07$) excluded sextants ($.38 \pm 0.13$). with no statistically differences between groups.

Results found high mean values of periodontal pockets and excluded sextants in age group (40-79) years, and high mean values of healthy gingiva, gingival bleeding and dental calculus in age groups (20-39) years with a highly statistically significant difference regarding healthy gingiva and excluded sextants. And there is an increase in periodontal pockets with increase duration of illness for hypothyroid group, while increase in dental calculus with increase the duration of illness for the hyperthyroid group without statistically significant differences.

Conclusion: The results of the current study revealed that these patients with thyroid disorders (hypothyroidism and hyperthyroidism) are at risk of oral disease, patients with thyroid disorder had high levels of caries experience and periodontal disease increased with increase the duration of illness and advancing age.