# Oral manifestations, Microbial study And Salivary IgA study In lymphoma patients Receiving chemotherapy

A thesis

Submitted to the council of the college of Dentistry at the University of Baghdad in partial fulfillment of the requirements for the degree of Master of Science in Oral Medicine

By Hamza Waleed Ahmed Alkuhla (B.D.S)

Supervised by Assist. Professor Dr.Fawaz Dawood Al-Aswad B.D.S.,M.Sc.,Ph.D(Oral Medicine)

2011

1432

**Baghdad-Iraq** 

# Abstract

#### Background

Lymphoma is a general term that includes 40 different sub-types of the disease. These can be divided into two main types: Hodgkin Lymphoma and Non-Hodgkin lymphoma. Lymphomas are a cancer of white cells produced by the bone marrow and matured in the lymphatic system. The cancer may originate in the lymph glands or organs such as the liver, spleen, bowel or bone marrow.

#### Aims of study

The aims of this study was to determine the prevalence of oral manifestations in lymphoma patients (Hodgkin's and Non Hodgkin's), isolate and identify different microorganism (aerobic, anaerobic and fungi), from oral micro flora from lymphoma patients under treatment and detect the level of salivary IgA in Hodgkin's and Non Hodgkin's patients in comparison with healthy control.

#### Subjects, materials and methods

The study included 52 lymphoma patients (17 Hodgkin's and 35 Non Hodgkin's) of both sexes (27 male and 25 female) those patients were matched in age and sex with 15 healthy control subjects. The micro-organisms isolated from oral cavity in lymphoma patients and healthy controls were studied by various bacteriological and mycological methods, to identify different bacterial species and fungi. Saliva collected and level of salivary IgA was measured by enzyme immunosorbent assay.

ା ଡିଏହାରେ ବେବେବେ ବେବେବେ ବେବେବେ ବେବେବେ ବେବେବେ ବେବେବେ କେବେବେ କେବେ କେବେ କେବେ କେବେ କେବେ କେବେ କେବେ କେବେ କେବେ ବେବେ କେବେ କ

### Results

The most frequent oral manifestations in the lymphoma patients in this study was taste alteration (52.2%), burning mouth sensation (37.3%), dry mouth (37.3%), halitosis (16.4%) and (7.5%) white coated tongue respectively.

Various species of bacteria were isolated; the main bacteria isolated were streptococcus viridians, Neisseria, Staphylococcus aureus, Staphylococcus albus, Pseudomonas, Actinomyces, Lactobacillus, Klebsiella, and Escherichia-coli. And anaerobic bacteria such as Peptostreptococcus and Bacillus. Fungi such as Candida albicans were also identified.

Level of Salivary IgA was significantly decreased in lymphoma patients under treatment in comparison to healthy control.

## Conclusions

The finding of this study shows obvious differences in the prevalence of micro-organisms between lymphoma patients and healthy control.

The most frequent oral manifestations in lymphoma patients were taste alterations, xerostomia, and burning mouth sensation.

A significant decreased in level of salivary IgA was noticed in all lymphoma patients.

It is highly recommended that all patients to have thorough dental examination before starting treatment.