

بسم الله الرحمن الرحيم



SALWA AKL



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم



SALWA AKL

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



SALWA AKL



بعض الوثائق الأصلية تالفة



SALWA AKL



بالرسالة صفحات

لم ترد بالأصل



SALWA AKL

**EFFECT OF CHLORHEXIDINE CONTAINING
VARNISH ON STREPTOCOCCUS MUTANS AND
LACTOBACILLI COUNT IN DENTAL PLAQUE
AMONG A GROUP OF VISUALLY HANDICAPPED
INDIVIDUALS**

B16901

Thesis

Submitted for partial fulfillment of the requirements of

Ph. D.

in Dental Public Health and Preventive Dentistry

BY

OMYMA AHMAD KOLKAILA

Assistant lecturer of Dental Public Health and Preventive Dentistry

Faculty of Dentistry

Tanta University

1997

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"ترفع درجات من نشاء، وفوق كل ذي علم عليم"

آية ٧٦ سورة يوسف

SUPERVISORS

Prof.Dr.

NAGAT MAHMOUD WAGUIH

Head of department of Paedodontics,
Public health and preventive Dentistry
Faculty of Dentistry,
Tanta University.

Nagat

Prof.Dr.

ABD-EL RAHEEM GHARIB ADS

Professor of Bacteriology
Faculty of Medicine,
Tanta University.

A. Ads

Dr.

MEDHAT ABD-EL HAMID FOUDA

Lecturer of Pharmaceutical Technology
Faculty Of Pharmacy, Tanta University

Medhat A. Fouda

Dedication

I would like very much to dedicate this work to
my late father

Prof.Dr. Ahmad M.Kolkaila

former Dean of Faculty of Science, Tanta University

He was always the one who cared, supported and encouraged me

Even away with his body, still my shining example,

my first teacher and will always be within me

May GOD bless his soul

Acknowledgments

I would like to express my deepest thanks and gratitude to **Prof. Dr. Nagat Mahmoud Waguih** Head of Paedodontics, Public health and Preventive dentistry Department, Faculty of Dentistry, Tanta University, for her kind supervision, continuous guidance and great effort and support during supervising this work and always.

I wish to thank very much **Prof. Dr. Abd-El Raheem Gharib Ads** Professor of microbiology, Faculty of Medicine, Tanta University, for his great effort, help and meticulous advice during this work.

I wish also to express my thanks to **Dr. Medhat Fouda** lecturer of Pharmaceutical technology, Faculty of Pharmacy, Tanta University, for his great help, effort and guide during this work .

It is a great honour to express my deepest gratitude to **Prof. Dr. Azza Gamal EL-Din Hanno**, Head of Paedodontics, Public Health and Preventive Dentistry, Faculty of Dentistry, Alexandria University, for her valuable advices in suggesting the point of the study. Her care and great effort during writing the protocol of this work.

Words are not sufficient to express my feelings and thanks to **Dr. Azza Mahmoud Tag El-Din** lecturer of Paedodontics, Faculty of Dentistry, Tanta University for her continuous unlimited help, generous assistance, which had an impact on this work and her continuous encouragement made this work possible and real.

I would like to thank technicians in Bacteriological Department, Faculty of Medicine, all handicapped students who participated in this study for their good cooperation. Also, thanks are to the administration of *El-Nour Institute* in Tanta.

My special thanks and sincere gratitude are to my family and my children Ahmad, Omar and my little lovely baby Ali, for their support, understanding and encouragement.

Lastly, I feel greatly indebted to my husband Dr. Mohamed Hany Salem lecturer of Ophthalmology, Benha Faculty of Medicine for his great help, patience and understanding.

CONTENTS

Introduction	1
Review of literature	4
Aim of the work	45
Individuals, Materials and Methods	46
Results	57
Discussion	86
Summary, conclusions and recommendations	99
References	102
Appendix 1	I
Appendix 2	I
Appendix 3	II
Appendix 4	II
Appendix 5	III
Appendix 6	IV
Appendix 7	VI
Arabic summary	

List of tables

Table (1) : Number of boys and girls, mean age (years) in the test and control groups.	58
Table (2) : Comparison of the mean counts of Strept.mutans (CFU) between the test and control groups.	61
Table (3) : Comparison of the mean difference in Strept.mutans counts (CFU) between the base line and subsequent samples in the test group .	63
Table (4) : Comparison between the mean counts of Strept. mutans (CFU) during the period of varnish application in the test group.	64
Table (5) : Comparison between the mean counts of Strept. mutans (CFU) within three months after the third varnish application in the test group.	65
Table (6) : Comparison of the mean difference in Strept.mutans counts (CFU) between the base line and subsequent samples in the control group.	66
Table (7) : Comparison between the mean counts of Strept. mutans (CFU) during the period of varnish application in the control group.	67
Table (8) : Comparison between the mean counts of Strept. mutans (CFU) within three months after the third varnish application in the control group.	68
Table (9) : Comparison of the mean counts of Lactobacilli (CFU) between the test and control groups.	69
Table (10) : Comparison of the mean difference in Lactobacilli counts (CFU) between base line and subsequent samples in the test group.	71

Table (11) : Comparison between the mean counts of Lactobacilli (CFU) during the period of varnish application in the test group.	72
Table (12) : Comparison between the mean counts of Lactobacilli (CFU) within three months after the third varnish application in the test group.	73
Table (13) : Comparison of the mean difference in Lactobacilli counts (CFU) between base line and subsequent samples in the control group.	74
Table (14) : Comparison between the mean counts of Lactobacilli (CFU) during the period of varnish application in the control group.	75
Table (15) : Comparison between the mean counts of Lactobacilli (CFU) within three months after the third varnish application in the control group.	76
Table (16) : Comparison between the test and control groups in the mean (DMFS) during the study.	77
Table (17) : Comparison of the mean difference in DMFS between the base line and after 6,12 and 18 months in the test group.	79
Table (18) : Comparison between the mean DMFS at 6,12 and 18 months in the test group.	80
Table (19) : Comparison of the mean difference in DMFS between the base line and after 6, 12 and 18 months in the control group.	81
Table (20) : Comparison between the mean DMFS at 6,12 and 18 months in the control group.	82

List of figures

Fig. (1) : Number of boys and girls in test and control groups	59
Fig. (2) : Mean age of boys and girls in test and control groups	60
Fig. (3) : Mean count of Strept. mutans (CFU) in test and control groups.	62
Fig. (4) : Mean count of Lactobacilli (CFU) in test and control groups.	70
Fig. (5) : Mean caries index (DMFS) in test and control groups.	78