

بسم الله الرحمن الرحيم



-Cardon - Cardon - Ca





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم قسم

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



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار







بعض الوثائق

الأصلية تالفة





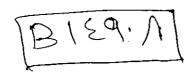


بالرسالة صفحات

لم ترد بالأصل



بسم الله الرهمن الرهبيم



MANDIBULAR BONY CHANGES IN CHRONIC RENAL FAILURE PATIENTS

Thesis

Submitted to the Faculty of Oral and Dental Medicine, Cairo University, in the partial fulfillment of the requirements for the Degree of Master of Dental Science (ORAL SURGERY)

BY

Hay Niv

AMR MAMDOUH KAMEL SHEBAITA

B.D.S. (Cairo)

Dentist

National Research Center

Faculty of Oral & Dental Medicine
Cairo University

2000

SUPERVISISORS

Prof. Dr. HANY HUSSEIN AMIN,

Professor of Oral Surgery, Faculty of Oral and Dental Medicine,

Cairo University.

Prof. Dr. MAHER FOUAD RAMZY,

Professor of Internal Medicine and Nephrology, Faculty of Medicine, Cairo University.

Prof. Dr. WASIF GIRGIS NICOLA,

Professor of Endocrinology, National Research Centre.

<u>ACKNOWLEDGEMENT</u>

I would like to express my infinite gratitude and respect to *Prof. Dr. HANY HUSSEIN AMIN*, Professor of Oral Surgery, Faculty of Oral and Dental Medicine, Cairo University for his continuous guidance and supervision, his encouragement and faithful support throughout the fulfillment of this work.

I would like to express my deep thanks and obligations to *Prof. Dr. MAHER FOUAD RAMZY*, Professor of Internal Medicine and Nephrology, Faculty of Medicine, Cairo University for his continuous help, supervision and his careful review of all the details of this work.

I am indepted to *Prof. Dr. WASIF GIRGIS NICOLA*, Professor of Endocrinology, National Research Centre for his constructive guidance, fruitful criticism and meticulous revision of every step of this work.

My sincere thanks to *Ass. Prof. Dr. MUSHIRA MOHAMAD ABD EL-LATIF DAHABA*, Ass. Professor,
Oral Radiology Dept., Faculty of Oral and Dental Medicine,
Cairo University, for her great help and advice, and her

generosity in both time and effort along every step of this work.

My heartful thanks to *Ass. Prof. Dr. ZAKARIA ABD EL-HALIM EL-KHYAT*, Ass. Prof. Of Clinical Biochemistry, National Research Center for his kind supervision, and constructive guidance through the whole work.

CONTENTS

	Page
List of figures	iii
List of Tables	. V
INTRODUCTION	1
REVIEW OF LITERATURE	3
AIM OF THE STUDY	53
SUBJECTS AND METHODS	54
RESULTS	66
DISCUSSION	113
SUMMARY AND CONCLUSION	128
RECOMMENDATION	131
REFERENCES	132
APPENDIX	155
AR ARIC STIMMARY	

LIST OF FIGURES

Fig.		Page
1	Sysmex NE 1500 automated cell counter	58
2	ABL 510 radiometer gas analyser	58
3	Beckman C X 4 autoanalyser	59
4	Beckman systems E2A autoanalyser	59
5	Identification of the reference landmarks on the mental foramen	64
6	Radiographic assessment of the inferior mandibular cortical thickness	64
7	Panoramic radiograph of one of the control cases revealing normal thickness of mandibular cortex	73
8	Panoramic radiograph of a chronic renal failure patient under hemodialysis showing thinning of the inferior border of the mandible at both right and left sides	73
9	Periapical radiograph of lower anterior teeth of a diseased case showing complete loss of the lamina dura of the affected teeth with periapical radiolucencies related to their apices	78
10	Periapical radiograph of lower posterior region of a different case with chronic renal failure revealing radiolucencies related to apices of premolar and first molar with loss of lamina dura	

*

l II.	Panoramic radiograph showing homogenous bone pattern with loss of bone trabeculation and borders of mandibular canal at the left side of the mandible	79
2	Panoramic radiograph of a chronic renal failure case with loss of cortical lining of maxillary sinus	80

LIST OF TABLES

<u>Table</u>		Page
1	The distribution of the studied subjects according to age, sex and duration of dialysis	66
2	The distribution and comparison of the biochemical findings in the studied groups	67
3	The distribution and comparison of the hematologic findings in the studied groups	68
4	The distribution and comparison of the anthropometric findings in the studied groups	70
5	The distribution and comparison of the thickness of the inferior border of the mandible in both control group or (Gr I) and diseased group (Gr II)	71
6	Comparison between males and females in Gr II concerning the thickness of the inferior mandibular cortex	74
7	The distribution of the radiographic findings and its percentage among the subjects of (GR II)	75
8	Comparison between males and females in Gr II concerning the distribution of scores of the radiographic findings	81
9	The distribution of the biochemical findings in Gr IIa and Gr II b	84
10	The distribution of the hematological findings in Gr	85

X

11	Correlation between recorded thickness of the inferior border of the mandible and the duration of dialysis	86
12	The distribution and comparison of the thickness of the inferior border of the mandible in Gr IIa and Gr IIb	88
13	The mean \pm S.D. of the duration of dialysis for the different scores of radiographic changes	89
14	Comparison between various scores of radiographic changes in lamina dura, trabeculation and over all density in relation to the duration of dialysis	90
15	Comparison between the remaining recorded manifestations in relation to the duration of dialysis	92
16	Correlation between various recorded thickness of the inferior border of the mandible and the protein catabolic products, and serum minerals values in Gr II	94
17	Correlation between inferior border thickness of the mandible and alkaline phosphatase, parathyroid hormone, bicarbonate and pH values in Gr. II	95
18	Correlation between inferior border thickness of the mandible and the clotting profile in Gr. II	96
19	Correlation between inferior border thickness of the mandible and blood picture in Gr. II	97
20	Correlation between recorded thickness of the inferior border of the mandible and various anthropometric values in Gr II	98
21	Comparison between various scores of lamina dura alteration and their significant relations to biochemical hematological and anthropometric data in Gr. II	100