

COMPARATIVE STUDY OF DIFFERENT MODALITIES OF FIXATION OF MANDIBULAR FRACTURES

Thesis Submitted for the Partial Fulfillment of
the Master Degree in General Surgery

By

AHMED ALI MAHMOUD AWAD

M.B., B. Ch.

Supervised by

Prof. Dr.

MOSTAFA MOHAMED AHMED HEMEDA

Professor of Plastic and Reconstructive Surgery

Ain Shams University

Dr. AMR ALI SALAH MAHMOUD

Ass. Professor of Plastic and Reconstructive Surgery

Ain Shams University

**Faculty of Medicine
Ain Shams University**

1996



بسم الله الرحمن الرحيم

الرحمن * علم القرآن * خلق الإنسان
* علمه البيان *

صدق الله العظيم

سورة الرحمن الآيات ١-٤

Acknowledgment

Words stand short when coming to express my deep gratitude and great thanks to my Professor and Supervisor, Prof. Dr. Mostafa Hemeda, Professor of Plastic and reconstructive surgery, Faculty of Medicine, Ain Shams University. Whatever said, will never fulfill my gratitude to him. His continuous encouragement and sincere advice were the main factor to complete this work in its final form. I am actually indebted to him with many thanks.

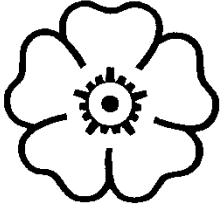
I am delighted also to introduce my deep respect and thanks to Dr. Amr Salah, Assistant Professor of Plastic and reconstructive surgery, Faculty of Medicine, Ain Shams University. His kind care and great assistance gave me the confidence to complete this study.

I wish to express my deepest gratitude and cordial thanks to Dr. Ahmed El-Badawy, Lecturer of Plastic and reconstructive surgery, Faculty of Medicine, Ain Shams University. For his kindness, encouragement, and cooperation in all steps of this work.

Special thanks to Dr. Hazem Maher, Lecturer of Plastic and reconstructive surgery, Faculty of Medicine, Ain Shams University. Who helped me with updated papers and clarify many difficult subjects in this study and offered me all data and investigations of his patients.

To my great Professor, who almost always give us all the time, in the scientific meetings, in the theaters, conference, the art of plastic and reconstructive surgery, Prof. Dr. Hassan Badran, Professor and Head of the Department of Plastic and reconstructive surgery, Faculty of Medicine, Ain Shams University. His immense knowledge and utmost supreme guidance give us the light in our scientific work beyond most wild hopes.

Ahmed Ali



To my parents

Ahmed Ali

List of Contents

	Page
Introduction and Aim of the work	1
Review of Literature	
- Anatomy and Embryology of the mandible	5
- Applied dental anatomy and occlusion	31
- Bone healing and repair	48
- Malunion and Malocclusion in mandibular fractures	64
- Types of mandibular fractures	72
- Methods of mandibular fracture fixation	94
Material and Methods	135
Results	141
Discussion	160
Summary and Conclusion	165
References	168
Arabic Summary	

List of Figures

Figure	Page	Figure	Page
1	7	25	80
2	11	26	82
3	13	27	83
4	15	28	83
5	20	29	84
6	22	30	85
7	23	31	101
8	25	32	103
9	29	33	104
10	33	34	105
11	34	35	106
12	35	36	108
13	37	37	109
14	40	38	116
15	41	39	119
16	45	40	127
17	50	41	142
18	51	42	143
19	52	43	151
20	54	44	153
21	57	45	155
22	57	46	157
23	74	47	158
24	75	48	159

List of Tables

	<i>Page</i>
Table 1	46
Table 2	139
Table 3	141
Table 4	147
Table 5	149

