Fracture Resistance of Endodontically Treated Upper Premolars with Different Cavity Designs

Thesis submitted to the Department of Operative Dentistry, Faculty of Dentistry, Ain Shams University, in partial fulfillment of the requirements of the PhD Degree in Operative Dentistry

By

Heba Mohammad Ahmad Al-Sanafawy

B.D.S. Ain Shams University, 2008
M.Sc, Ain Shams University, 2014

2018

Supervisors

Dr. Farid Mohammed Sabry El-Askary

Professor of Operative Dentistry
Faculty of Dentistry
Ain Shams University

Dr. Tarek Salah El-Din Hussin

Professor of Dental Biomaterials
Faculty of Dentistry
Ain Shams University

Dedication

To my family; without their love, support and encouragement throughout my life, I would not be where I am today.

Acknowledgment

I would like to express my deep and sincere appreciation to my supervisors:

Dr. Tarek Salah El-Din Hussin, Professor of Dental Biomaterials, Faculty of Dentistry, Ain Shams University, for his support, patience, and encouragement. His valuable guidance, help and advice made this thesis possible.

Special thanks to my dear friends **Dr. Dena Safwat** and **Dr. Mohammed Nasser**, Lecturers of Operative Dentistry, Faculty of Dentistry, Ain Shams University for their sincere unlimited help and support during every step of this thesis.

Last but not the least I would love to express my deep gratitude to **Dr. Khaled Aly Nour,** Associate Professor, PhD Course Director and Head of Operative Dentistry Department, Faculty of Dentistry, Ain Shams University for his mentorship and guidance throughout the path of my degree.

Table of contents

List of tables

List of figures