المشـــرفون

أ.د /إيهاب السيد مصلح

أستاذ التركيبات السنية المثبتة

كلية طب الفم و الأسنان

جامعة القاهرة

أ.د /إيمان محمد أنور

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جامعة القاهرة

العلاقة بين القطاق الداخلي ومقاومة الكسر لاثنين من أنظمة السيراميك

(دراسة معملية)

رسالة مقدمة إلى كلية طب الفم و الأسنان

جامعة القاهرة

تمهيدا للحصول على درجة الماجستير في طب وجراحة الفم والأسنان

(الاستعاضات السنية المثبتة)

مقدمة من

الطبيبة/ علا عبد الرضا حسن رضا

بكالوريوس طب وجراحة الفم والأسنان

جامعة مصر للعلوم والتكنولوجيا

٢٠٠٢

كلية طب الفم والأسنان

جامعة القاهرة

٢٠٠٩

Abstract

The present investigation was designed to study the effect of two different all-ceramic crown construction techniques namely; the IPS Empress pressable, and the machinable techniques, on the marginal/ internal fit and the fracture resistance of the constructed samples. A stainless-steel die was machine milled to simulate a prepared maxillary first premolar. A total of 20 all-ceramic samples were constructed to represent two groups of 10 samples each. Each group was subdivided into two equal subgroup of five randomly selected samples for the internal and marginal discrepancy evaluation and the fracture resistance tests.

Results revealed that the highest mean marginal discrepancy was obtained by the IPS Empress Esthetic Crowns (96.7 microns), while the highest mean internal gap was obtained by the IPS Empress CAD Crowns (58 microns), and the highest mean fracture strength obtained by IPS Empress Esthetic crowns (1224.6 Newtons). Despite of the non significant statistical analysis results, a correlation was observed between the fit and the fracture resistance for the tested construction techniques.

Keywords

- Internal fit
- Fracture resistance
- Pressable Ceramics
- Machinable Ceramics
- Correlation

Correlation between the internal fit and fracture resistance of two different all ceramic systems (An in vitro study)

Thesis Submitted to
The Faculty of Oral and Dental Medicine, Cairo University,
In Partial Fulfillment of the Requirements for

The Master Degree
in
Fixed Prosthodontics

By
Ola Abdulredha Hasan Redha
B.D.S.(MUST)

Faculty of Oral and Dental Medicine,

Cairo University
2009

Supervisors

Dr. Ihab E. Mosleh
Professor of fixed prosthodontics Department
Faculty of Oral and Dental Medicine
Cairo University

Dr. Eman M. Anwar
Professor of fixed prosthodontics Department
Faculty of Oral and Dental Medicine
Cairo University

بسم الله الرحمن الرحيم

وقل اعملوا فسيرى الله عملكم ورسوله والمؤمنون وستردون إلى عالم الغيب والشهادة فينبئكم بما كنتم تعملون (١٠٥)

صدق الله العظيم

سورة التوبة

Dedication

This work is dedicated to the people in my life who have given me so much support and love, and because of whom my life is worth living.

My dear mother, the light that leads the way

My dear father, the strength that keeps me going

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ACKNOWLEDGEMENT

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I would like to express my endless gratefulness to Gracious God for helping me to achieve this work.

I would like to acknowledge with all respect and appreciation, the devoted effort of ***Dr. Ihab Mosleh***, Professor of Fixed Prosthodontics, Faculty of oral and dental medicine, Cairo University, for his considerable support, valuable supervision, and help. I have admit that his encouragement, suggestions, and high quality of knowledge made all the problems facing me easier to be solved. His enthusiasm and supervising ability to research will always inspire me. I cannot find sufficient words to express my gratitude to his generosity, kindness and dedication through his constant step by step follow up in my research work. I owe him a lot and deeply thank him not only for his effort in this work but for all his good deeds and sincere advices throughout the years.

I'm deeply grateful to ***Dr. Eman Anwar***, Professor of Fixed Prosthodontics, Faculty of oral and dental medicine, Cairo University, for her sincere care, valuable guidance and continuous encouragement that contributed very much in this achievement. I find it difficult to sufficiently thank her for such a penetrating guidance, she was a great help through all the phases of this thesis. Her criticism was always valuable and extremely helpful to me during the course of this work. To her I owe much more than words to say.

Many thanks should also be given to all staff members and my colleagues of Fixed Prosthodontics department, Faculty of oral and dental medicine, Cairo University, and for all those who participated in making this work possible.

Last but not least I would like to thank my family for being there for me.