

**OUTCOMES OF PULP PROTECTION WITH EITHER
DYCAL® AND VITREBOND™ OR BIODENTINE™
IN PERMANENT TEETH WITH DEEP CARIES OF
6-18 YEARS OLD PATIENTS**

SUTHIDA THEPPIMARN

**MASTER OF SCIENCE
IN DENTISTRY**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

**GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
APRIL 2016**

**OUTCOMES OF PULP PROTECTION WITH EITHER
DYCAL® AND VITREBOND™ OR BIODENTINE™
IN PERMANENT TEETH WITH DEEP CARIES OF
6-18 YEARS OLD PATIENTS**



**A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE
IN DENTISTRY**

GRADUATE SCHOOL, CHIANG MAI UNIVERSITY

APRIL 2016

**OUTCOMES OF PULP PROTECTION WITH EITHER
DYCAL[®] AND VITREBOND[™] OR BIODENTINE[™]
IN PERMANENT TEETH WITH DEEP CARIES
OF 6-18 YEARS OLD PATIENTS**

SUTHIDA THEPPIMARN

THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE
IN DENTISTRY

Examination Committee:

.....Chairman
(Lect. Dr. Supitcha Talungchit)

.....Member
(Dr. Thanapat Sastraruji)

.....Member
(Lect. Papimon Chompu-inwai)

Advisory Committee:

.....Advisor
(Lect. Papimon Chompu-inwai)

.....Co-advisor
(Dr. Thanapat Sastraruji)

22 April 2016

Copyright © by Chiang Mai University

ACKNOWLEDGEMENT

First of all, I would like to appreciate thank you to my kindness thesis advisor, Dr. Papimon Chompu-inwai, Lecturer, Department of Orthodontics and Pediatric Dentistry, Faculty of Dentistry, Chiang Mai University, for her invaluable advices, patience, motivation, enthusiasm and immense knowledge. Her guidance helped me throughout the making and academic writing of this thesis as well as other aspects of my Master's course. Without a lot of her support and encouragement, this research would not have been finished and achieved the goal.

I am also appreciated Lecture Dr. Supitcha Talungchit, Department of Operative Dentistry, Faculty of Dentistry, Prince of Songkla University, chairperson, for excellent advices for this thesis. I also would like to thank Dr. Thanapat Sastraruji for his kindness and advices on the study design and data analysis involving in this thesis.

In addition, I also would like to thank all of colleagues in Vital pulp team; Dr. Thitida Sutharaphan, Dr. Issaraporn Koipanich, Dr. Sophon Simprasert, Dr. Puangporn Bua-on and Dr. Nuttaporn Prarinyaprom for their cooperation attribute to the research and working as a team for our project in young permanent teeth vital pulp therapy. I am also grateful to all staffs and master degree students in division of Pediatric Dentistry, Faculty of Dentistry, Chiang Mai University, for their helpfulness in referring cases to our vital pulp project and Pediatric Dental assistant team, for their excellent assistance in clinical works.

My sincere thanks also go to Asst.Prof. Patchanee Chuveera, Dr. Areerat Nirunsittirat, Lecturer, Department of Family and Community Dentistry, Faculty of Dentistry, Chiang Mai University, and Dr. Savitri Vaseenon, Lecturer, Department of Operative Dentistry, Faculty of Dentistry, Chiang Mai University, and for excellent and benefit advices involving in this thesis.

This research would not be possible without the research fund from the graduate school and Faculty of Dentistry, Chiang Mai University.

Finally, I would like to express my profound gratitude and deeply appreciated to my beloved parents and relatives for their love and supports. I would like to also give my special thanks to all of my post graduatefriends for their supports and friendship.

Without all their supports I am sure that I would not have been able to achieve so much. This thesis is especially dedicated to them.

For any errors or inadequacies that may remain in this work, of course, the responsibility is entirely my own.

Suthida Theppimarn

The seal of Chiang Mai University is a circular emblem. In the center is a stylized elephant facing left, with a flame-like symbol above its head. The elephant is surrounded by a circular border containing the text "CHIANG MAI UNIVERSITY 1964". Above the elephant, there is Thai text: "มหาวิทยาลัยเชียงใหม่" (Mahavithayalai Chiang Mai).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved