Title page:

Title: Comparison of Clinical and Radiographic Success Between:
Mineral Trioxide Aggregate (MTA) & Ferric Sulfate (FS) Pulpotomies for Primary Molars.

NCT 02783911

Date: Jan 09, 2015

LOMA LINDA UNIVERSITY

School of Dentistry

CONSENT TO PARTICIPATE IN A CLINICAL RESEARCH STUDY

STUDY TITLE: Comparison of Clinical and Radiographic Success between Mineral Trioxide Aggregate (MTA) & Ferric Sulfate (FS) Pulpotomies for Primary Molars.

PRINCIPAL INVESTIGATOR: Jung-Wei Chen, DDS, MS, and PhD
Program Director/Advanced Specialty Education in Pediatric Dentistry
Loma Linda University School of Dentistry
Loma Linda, CA 92350

Purpose of Study

The purpose of this study is to compare the efficacy of two different medicines, mineral trioxide aggregate (MTA) and ferric sulfate (FS), used in performing baby root canals. Your child is invited participate in the study because your child's dentist has recommended dental treatment involving a root canal. The medicines, MTA and FS, are not experimental and are frequently used in patients everyday. Our goal is to determine if there is any difference in the success rates of one medicine over another.

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This website will not include information that can indentify you. At most, the website will include a summary of the results. You can research this website at any time.

Approximately 60 subjects will participate in this study.

Study Procedures

Participation in this study involves the following:

- Before your child receives pulp treatment, he or she will be randomly assigned to one of two study groups using a process similar to flipping a coin.
- Subjects in Group MTA will be treated with MTA as the pulpal medicine prior to the final stainless steel crown restoration.
- Subjects in Groups FS will be treated with FS as the pulpal medicine prior to the final stainless steel crown restoration.
- Your child will return at 3 months, 6 months, 9 months, and 12 months for a clinical and x-ray evaluation of the subject tooth, which is routine and the standard of care. If the observed tooth has a failed treatment or increased mobility because it is ready to fall out, we will extract the tooth before the end of the observation period. Your child will not have to continue with the study's scheduled clinical and x-ray evaluations of the subject after the extraction. Your child will return to his or her routine check-up schedule.
- Your child will receive a routine periodic examination, teeth cleaning, and fluoride treatment at 6 months and 12 months.

Potential Risks

The committee at Loma Linda University that reviews human studies (Institutional Review Board) has determined that participating in this study exposes your child to minimal risk of x-ray exposure.

One potential risk of this study is a breach of confidentiality or subject privacy. Efforts will be made to keep you and your child's personal information confidential. We cannot guarantee absolute confidentiality. Your child will not be identified by name in any publications describing the results of this study. Study results will be presented as averages or generalizations. All study information will be stored in a secure location accessible only to the researchers.

Benefits

The benefit of a successful pulpotomy is that your child's tooth will remain in place until it is ready to naturally come out which prevents space loss and the need to correct space loss. The scientific information we learn from the study may benefit clinicians and future patients by differentiating the ability of MTA and FS to provide long lasting pulp therapy.

Participants' Rights

Your child's participation is voluntary, and you or he/she may refuse to participate and/or withdraw at any time without penalty or loss of benefits to which your child would otherwise be entitled up to the point of withdrawal. Your dentist has the right to withdraw your child from the study at any time if he or she feels that it is in your child's best interest or if your child fails to comply with the terms of the study. You may be asked questions about your experience with the study if you are withdrawn or withdraw from the study. You must return all study products at the conclusion of your participation.

Costs

There are no costs for participating in this study. Participants will be compensated $50 if he/she completes all four scheduled evaluation examinations or completes all evaluation examinations until the subject tooth comes out (which ever comes first).

Research-related Injury

Your study doctors will be monitoring your condition throughout the study, and precautions will be taken to minimize the risks to you from participating. If you are injured or become ill while taking part in this study:

- If the situation is a medical emergency, **call 911** or go to the nearest emergency room. Then, notify the study doctor as soon as you can.
- For a non-emergency injury or illness, notify your study doctor as soon as you can.
- To contact Dr. Jung-Wei Chen during regular business hours, dial 909-558-4689. After hours, call 909-558-4000 and ask for the pediatric dentistry resident on call, and identify yourself as a subject in this study.

Appropriate medical treatment will be made available to you. However, you and your insurance company will be billed at the usual charge for the treatment of any research-related injuries, illnesses, or complications. You might still be asked to pay whatever your insurance does not pay.

Also, no funds have been set aside, nor any plans made to compensate you for time lost for work, disability, pain or other discomforts resulting from your participation in this research.

By participating in the study, you do not give up any of your legal rights.

Confidentiality

All research records and materials that would identify you or your child will be held confidentially. Records and materials that pertain to your child's participation in this study may be made available to authorized representatives of the U.S. Food and Drug Administration (FDA) for their approval of the study and/or products, to the sponsor for their product development and improvement, and to study personnel who are associated with this study for their conduct of the study. Your authorization to make the records and materials pertinent to your child's participation in this study available to the above individuals and agencies will continue indefinitely unless you notify the investigators of this study in writing that you wish to revoke it.

Impartial Third Party

If you wish to contact an impartial third party not associated with this study regarding any questions about you or your child's rights or to report a complaint you may have about the study, you may contact the Office of Patient Relations, Loma Linda University Medical Center, Loma Linda, CA 92354, phone (909) 558-4647, e-mail patientrelations@llu.edu for information and assistance.

Informed Consent Statement

I have read the contents of the consent form and have listened to the verbal explanation given by the investigator. My questions concerning this study have been answered to my satisfaction. I hereby give voluntary consent for my child to participate in this study. Signing this consent document does not waive my or my child's rights nor does it release the investigators, institution, or sponsors from their responsibilities. I may call Dr. Yiming Li at (909) 558-8178 during routine office hours or during non-office hours at (909) 519-1151 if I have additional questions or concerns. I have received a copy of the California Experimental Subject's Bill of Rights and have had these rights explained to me.

This protocol has been explained to my child at a level that he/she can comprehend and I give permission for my child participate in this study. I understand that I will be been given a copy of this consent form after signing it.

_____ _____

Print Name of Parent/Guardian Print Name of Child

_____

Signature of Parent/Guardian

_____ _____

Date Date

I attest that the requirements for informed consent from the research project described in this form have been satisfied, that I have discussed the research project with the participant and explained to him or her in nontechnical terms all of the information contained in this informed consent form, including any risks and adverse reactions that may reasonably be expected to occur. I further certify that I encouraged the participant's parent or guardian to ask questions and that all questions asked were answered.

_____ _____

Signature of Study Investigator Printed Name of Investigator

Date:_____

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Adventist Health Sciences Center
Institutional Review Board
Approved 1/9/15 Void after 12/9/2015
5140262 Chair R L Rugliyama

INSTITUTIONAL REVIEW BOARD
Authorization for Use of Protected Health Information (PHI)

OSR#

Per 45 CFR §164.508(b)

OFFICE OF SPONSORED RESEARCH
Loma Linda University • 11188 Anderson Street • Loma Linda, CA 92350
(909) 558-4531 (voice) / (909) 558-0131 (fax)

TITLE OF STUDY: Mineral Trioxide Aggregate (MTA) & Ferric Sulfate (FS) Pulpotomies for Primary Molars. Comparison of Clinical and Radiographic Success between

PRINCIPAL INVESTIGATOR: Jung-Wei Chen, DDS, MS, and PhD
Program Director/Advanced Specialty Education in Pediatric Dentistry
Loma Linda University School of Dentistry
Loma Linda, CA 92350

The study named above may be performed only by using personal information relating to your child's health. National and international data protection regulations give you the right to control the use of your child's medical information. Therefore, by signing this form, you specifically authorize your child's medical information to be used or shared as described below.

The following personal information, considered "Protected Health Information" (PHI) is needed to conduct this study and may include, but is not limited to: Name and the results of all tests, procedures.

The individual(s) listed above will use or share this PHI in the course of this study with the Institutional Review Board (IRB) and the Office of Research Affairs of Loma Linda University.
The main reason for sharing this information is to be able to conduct the study as described earlier in the consent form. In addition, it is shared to ensure that the study meets legal, institutional, and accreditation standards. Information may also be shared to report adverse events or situations that may help prevent placing other individuals at risk.

All reasonable efforts will be used to protect the confidentiality of your childs PHI, which may be shared with others to support this study, to carry out their responsibilities, to conduct public health reporting and to comply with the law as applicable. Those who receive the

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5140262 Chair R L Rugh, MD

PHI may share with others if they are required by law, and they may share it with others who may not need to follow the federal privacy rule.

Subject to any legal limitations, you have the right to access any protected health information created during this study. You may request this information from the Principal Investigator named above but it will only become available after the study analyses are complete.

- The authorization expires upon the conclusion of this research study.

You may change your mind about this authorization at any time. If this happens, you must withdraw your child's permission in writing. Beginning on the date you withdraw your child's permission, no new personal health information will be used for this study. However, study personnel may continue to use the health information that was provided before you withdrew your child's permission. If you sign this form and enter the study, but later change your mind and withdraw your permission, your child will be removed from the study at that time. To withdraw your child's permission, please contact the Principal Investigator at (909) 558-4611.

You may refuse to sign this authorization. Refusing to sign will not affect the present or future care your child receives at this institution and will not cause any penalty or loss of benefits to which your child is entitled. However, if you do not sign this authorization form, your child will not be able to take part in the study for which they are being considered. You will receive a copy of this signed and dated authorization prior to your child's participation in this study.

I agree that my child's personal health information may be used for the study purposes described in this form.

Signature of Parent/Guardian	Date
Printed Name of Parent/Legal Guardian	Representative's Authority to Act for Patient
Signature of Investigator Obtaining Authorization	Date

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5140262 Chair R L Rugbyjones

Comparison of Clinical and Radiographic Success between Mineral Trioxide Aggregate & Ferric Sulfate Pulpotomies for Primary Molars
IRB Telephone Recruitment Script

- Hello, my name is Minh-Ky Young with Loma Linda University's Department of Pediatric Dentistry. May I speak to the parents of _____?
- I would like to tell you about a research study that is being done by Dr. Chen, our program director and myself.
- Would it be convenient for me to talk to you about this study right now? (If not, set time for re-call.)
- The purpose of this study is to compare the success rates between 2 types of root canal materials used in baby teeth.
- You are invited to participate because your son/daughter had a baby root canal complete and I would like to examine how well the tooth is responding to the treatment.
- If you agree to participate, you will be asked to return to our clinic for 6 evaluation examinations (4 of which is your son's or daughter's routine 6 month check up visit).
- This will take about 30 minutes of your time for each visit.
- Your son/daughter be compensated $50 if he/she completes all six scheduled evaluation examinations or completes all evaluation examinations until his/her tooth comes out (which ever comes first). Your son/daughter will be paid $20 for each tooth that comes out or extracted and is donated back to this study for further histological evaluation
- The committee at Loma Linda University that reviews human studies (Institutional Review Board) has determined that participating in this study exposes your child to minimal risk. The medicaments mineral trioxide aggregate and ferric sulfate to be used in this study are not experimental and are frequently used in patients everyday. Our goal is to determine if there is any difference in the success rates of one medicament over another.
- One potential risk of this study is a breach of confidentiality or subject privacy. Efforts will be made to keep you and your child's personal information confidential. We cannot guarantee absolute confidentiality. Your child will not be identified by name in any publications describing the results of this study. Study results will be presented as averages or generalizations. All study information will be stored in a secure location accessible only to the researchers.
- Possible benefits are is that a successful pulpotomy is that your child's tooth will remain in place until it is ready to naturally come out which prevents space loss and the need to correct space loss. The scientific information we learn from the study may benefit clinicians and future patients as to differentiate the ability of these medicaments to provide long lasting pulp therapy.
- You may contact myself at (909) 558-4689. The principal investigator of the project is Jung-Wei Chen, DDS, MS, PhD and you may contact her at (909) 558-4690. If you wish to contact an impartial third party not associated with this study regarding any questions about your rights or to report a complaint you may have about the study, you may contact the Office of Patient Relations, Loma Linda University Medical Center, Loma Linda, CA 92354 phone (909) 558-4647, e-mail patientrelations@llu.edu for information and assistance.
- Participation is voluntary. Your decision whether or not to participate or to terminate at any time will not affect your care.
- Do you have any questions?
- Would you like to participate in this study?
- Thank you for your time.

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Institutional Review Board
Approved 1/9/15
5190262 Chair R L Rigsby MD

CALIFORNIA EXPERIMENTAL SUBJECT'S BILL OF RIGHTS

You have been asked to participate as a subject in an experimental clinical procedure. Before you decide whether you want to participate in the experimental procedure, you have a right to:

1. Be informed of the nature and purpose of the experiment.
2. Be given an explanation of the procedures to be followed in the medical experiment, and any drug or device to be utilized.
3. Be given a description of any attendant discomforts and risks reasonably to be expected from the experiment.
4. Be given an explanation of any benefits to the subject reasonably to be expected from the experiment, if applicable.
5. Be given a disclosure of any appropriate alternative procedures, drugs or devices that might be advantageous to the subject, and their relative risks and benefits.
6. Be informed of the avenues of medical treatment, if any available to the subject after the experiment if complications should arise.
7. Be given an opportunity to ask any questions concerning the experiment or the procedure involved.
8. Be instructed that consent to participate in the medical experiment may be withdrawn at any time and the subject may discontinue participation in the medical experiment without prejudice.
9. Be given a copy of any signed and dated written consent form used in relation to the experiment.
10. Be given the opportunity to decide to consent or not to consent to a medical experiment without the intervention of any element of force, fraud, deceit, duress, coercion or undue influence on the subject's decision.

I have carefully read the information contained above in the "California Experimental Subject's Bill of Rights" and I understand fully my rights as a potential subject in a medical experiment involving people as subjects.

_____ Date

_____ Signature of subject or Legally Authorized Representative

_____ *For inpatient studies, add:* Time

If signed by other than the subject, indicate: _____ Relationship to subject

_____ Name of subject

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5140262 Chair R L Rigsby

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INSTITUTIONAL REVIEW BOARD

RESEARCH PROTECTION PROGRAMS
24887 Taylor Street • Suite 202 • Loma Linda, CA 92350
(909) 558-4531 (voice) • (909) 558-0131 (fax)

Initial Approval Notice - Full Board

IRB#5140262

To: **Chen, Jung-Wei**

Department: **Pediatric Dentistry**

Protocol: **Comparison of clinical and radiographic success between mineral trioxide aggregate and ferric sulfate pulpotomies for primary molars: A preliminary study**

The protocol and consent form for this study were reviewed and approved by the IRB at a regularly scheduled meeting on 10-Dec-2014. This decision included the following determinations:

Risk to research subjects: **Minimal**

Approval period begins: **10-Dec-2014** and ends **09-Dec-2015**

Stipulations of approval:1) IRB waives the requirement of written assent for child < 12.
2) One parent's permission will suffice.

See attached list of items (if applicable).

See attached Guidance for Conditions of Approval.

Adverse events and unanticipated problems must be reported in accord with the attached Adverse Event Reporting Matrix **A**.

All investigators are responsible for assuring that studies are conducted according to the approved protocol. Principal investigators are responsible for the actions of sub-investigators and staff with regard to this approval.

Please note the PI's name and the assigned IRB number, as indicated above, on any future communications with the IRB. Direct all communications to the IRB c/o the Office of Sponsored Research.

Thank you for your cooperation in LLU's shared responsibility for the ethical use of human subject in research.

Signature of IRB Chair/Designee: R L Rigsby Date: 1/9/15

IRB Chair:
Rhodes L. Rigsby, MD, MBA
Department of Medicine
(909) 558-2341, rrigsby@llu.edu

IRB Administrator:
Linda G. Halstead, MA, Director
Research Protection Programs
Ext 43570, Fax 80131, lhalstead@llu.edu

IRB Analyst:
Anuradha Diekmann, MPH, CCRP
Research Protection Programs
Ext 86215, Fax 80131, adiekmann@llu.edu

LOMA LINDA UNIVERSITY

CONDITIONS OF IRB APPROVAL

IRB REQUIREMENTS FOR IMPLEMENTING FEDERAL AND INSTITUTIONAL IRB POLICIES

General

1. No subjects may be involved in any study procedure prior to the date indicated in the IRB approval notice or after the expiration date. This includes any testing solely to determine eligibility.
2. Unless IRB has stipulated a waiver of informed consent, the current IRB-approved consent form must be used to enroll subjects. The official consent accompanying this letter may be used as the master for making copies to provide to prospective study participants.
3. All recruitment materials and methods must be approved by the IRB prior to being used.
4. All modifications (e.g. changes to the protocol, the informed consent document(s)/process, or number of subjects) must be IRB approved prior to implementation (see http://research.llu.edu/changerequest.asp)
5. No study activities may be conducted after the IRB approval end date unless determined to be medically necessary by the PI.
6. To avoid disruption of a study, the PI should request renewal of IRB approval by promptly submitting a research report form (see http://research.llu.edu/researchreport.asp)

Records retention

Minimum requirements

- All records relating to this project, including signed consent forms, must be kept on file for at least 3 years following completion of the study, unless special conditions apply (see below).
- Study records MUST remain at the institution under the jurisdiction of a responsible party to be able to locate records after study closure. This includes approved IRB documents, as well as case-report forms, tapes, or transcripts, and all other data collection instruments and source documents.

Other special conditions

- Records involving the generation, disclosure, and/or use of Protected Health Information (PHI) should be retained for six years.
- Minors in research: records must be retained for seven years after all minors enrolled in the study reach the age of majority [age 18 in California]
- Records pertaining to in vitro fertilization studies or research involving pregnant women must be retained for a total of 25 years after study closure.
- Records generated from sponsored clinical trials may not be disposed until written permission is obtained from the sponsor.

FDA-regulated studies - In addition to minimum requirements:

- For drugs and devices with approved marketing applications, the retention period is two years after FDA approval.
- For drugs and devices where no application is filed or the application is not approved, the retention period is two years after the investigation is discontinued and FDA is notified. 21 CFR 312.57 and 21 CFR 812.140.

A: Non-FDA *without* DMC

☞*Internal Event*

IRB *itself* Performs AE Oversight
MINIMAL RISK STUDY

(Include shaded boxes for studies **With** Federal Funding)

BY Whom	TO Whom	WHAT KIND	WHEN
Investigator	IRB	**1, 2** SERIOUS RELATED (1)	Within 5 working days of investigator awareness OHRP Guidance 45 CFR 46.103
		5 NOT SERIOUS RELATED UNEXPECTED	Within 10 working days of investigator awareness OHRP Guidance 45 CFR 46.103
IRB	Institutional Official	**1, 5** RELATED UNEXPECTED that suggest study risks are greater than previously recognized	Within 10 working days of notice to IRB Institutionally required reporting time (2)
Institutional Official	OHRP and Funding Agency		Within one month of notice to IRB OHRP Guidance 45 CFR 46.103

(1) Any serious and related AE that occurs on a study correctly ranked as minimal risk is unexpected, by definition.

(2) To allow time for I/O review before reporting to OHRP

A & B *without* DMC ☞ ***Unanticipated Problems***
IRB *itself* Performs AE Oversight

(if **With** Federal Funding – add shaded boxes)

BY Whom	TO Whom	WHAT KIND (AE or ADR)	WHEN
Investigator *	IRB	**1** SERIOUS RELATED that are UNEXPECTED and that suggest the study risks are greater than previously recognized	Within 5 working days of investigator awareness (OHRP guidance: Dated 01-15-07 V.(2))
		5 NOT SERIOUS RELATED that are UNEXPECTED and that suggest the study risks are greater than previously recognized	Within 10 working days of investigator awareness (OHRP guidance: Dated 01-15-07 V.(2))
IRB	Institutional Official	**1, 5** RELATED that are UNEXPECTED and that suggest the study risks are greater than previously recognized	Within 10 working days of notice to IRB (not regulatory- this allows time for I/O to consider before reporting to OHRP)
Institutional Official	OHRP and Funding Agency		Within one month of notice to IRB (OHRP Guidance)

ITEMS SUBMITTED FOR IRB REVIEW:

1. IRB Application Form
2. Abstract
3. CA Experimental Subjects Bill of Rights
4. Informed Consent Document
5. HIPAA Authorization for Use of Protected Health Information
6. Protocol
7. Recruitment script