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The
American
Board of
Endodontics

Oral
Examination
Guidelines



diagnosis

sample question

treatment

subjective and objective

radiographic exam

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Helpful Hints

Eager to share their success and excitement, every new group of Diplomates offers their tips and insights to help those who have yet to get through the difficult, yet rewarding Board Certification process. New Diplomates routinely referred to the various examinations as “fair” and “rewarding.” Their specific observations and helpful hints regarding the Oral Examination are listed below.

General

Reading Materials New Diplomates Recommended

- *Inflammation: A Review of the Process* by Henry O. Trowbridge and Robert C. Emling
- *Pathways of the Pulp* by Stephen Cohen and Kenneth M. Hargreaves
- *Seltzer and Bender's Dental Pulp* by Kenneth M. Hargreaves, Harold E. Goodis and Samuel Seltzer
- *Dental Management of the Medically Compromised Patient* by Donald A. Falace and James W. Little
- *Journal of Endodontics*, especially the last two to three years
- *Medically Compromised Patient* by J.O. and F.M. Andreasen
- *Essentials of the Traumatic Injuries to the Teeth* by J.O. and F.M. Andreasen
- *Endodontic Topics* at <http://www.blackwell-synergy.com/loi/etp>
- ABE web site
- College of Diplomates web site, particularly the abstracts
- AAE web site

Suggested Study Methods

- Flashcards
- In a quiet and secluded study location
- Review courses
- Utilize a mentor and/or study partner
- Set aside time for study and reflection on a regular basis
- Listen to CD-ROM's of CE courses while commuting

Suggested Study Resources

- ABE web site
- Abstracts published on the College of Diplomates web site
- PubMed search
- ABE Boardwalk held annually at the AAE's annual session
- Local study groups – organize or join one

Mentors

- **A common thread among the Candidates is the importance of having at least one mentor.**
- *I encourage all Candidates to seek out mentors, a most valuable tool that is available to you. If you do not know anyone that can help you, place a quick call to the College of Diplomates.* - Dr. Bobby Caruso
- *I cannot emphasize enough how much help it was to study with another person.* – Dr. Stephen Tsoucaris
- *It is strongly advised to seek out one or more mentors for each phase of the process. Different opinions will develop insight into topics and expose areas needing more investigation.* – Dr. Marc Levitan

- *It was extremely beneficial for me to utilize that experiences of current Diplomates to guide, suggest and motivate. They served as role models, sounding boards and examples through the process. – Dr. James Jostes*
- *Seek out mentors throughout the process. I found all of the Diplomates that I approached to be extremely helpful with advice and guidance throughout the entire process. - Captain Stuart O. Miller*

Review Courses

- **The value of attending review courses throughout the Board Certification process is mentioned over and over.**
- *Take all the endodontic review programs that you can. – Dr. Joseph Morelli*
- *The Board review courses are great for the Written and Oral Examination. – Dr. Jaime Silberman*
- *A Board review course is indispensable in helping to put it all together. – Dr. Timothy Kirkpatrick*

Oral Examination

- **RELAX!**
 - **Despite initial fears, Candidates found the Oral Examination to be a fair and relaxed conversation with peers.**
 - *I found this to be the most rewarding part of the exam. – Dr. Bobby. Caruso*
 - *Stay calm, feel relaxed and be confident of yourself at the time of examination. – Dr. Iejaz Shahid*
 - *There is no substitute for a good night's sleep. – Dr. David Rosenbaum*
 - *There were no trick questions or unanticipated strategies. – Dr. Lester J. Quan*
 - *Examiners are very fair (and comprehensive) in their questioning. – Dr. Derik DeConinck.*
 - *The examiners are very fair and helpful. Relax and be confident (though it is hard to do). - Dr. Qiang Zhu*
- **Be Prepared**
 - *During the week, while I was treating patients, I would cite the literature that supports what and why I am doing a particular treatment procedure. Dr. Bobby Caruso*
 - *Keep updated with current literature throughout. – Dr. Helmut Walsch*
 - *Know all you can about medically compromised patients. – Dr. Claudia I. Holt*
 - *Start organizing early – at least six months before the examination. Whether you study alone, with a partner or through a mentor, create a schedule that gradually increases as you near the exam. Starting three months out, I got up an hour early to study. – Dr. David Kenee*
 - *The Oral Exam is a clinical exam and as such it requires evidence-based knowledge to support every procedure you do when you treat a patient. While treating patients in your practice review every single one of the steps you are taking and support them with literature. – Dr. Francisco Banchs*
 - *Pay attention to the 10 areas in which you are tested. Know the literature and justify your clinical decisions with the literature. When you are seeing patients review in your mind what you are doing and why. – Dr. Ariel Diaz*
 - *Follow the instructions/tips given at the review courses, diagnosis, and prognosis. Know the literature to substantiate your answers. Dr. Kimberly Kochis*
 - *During a workday, in private practice, use each patient case as if it were a Board case. Do this from early diagnosis to final recall. This will be a great experience in tying together your clinical knowledge and literature reference. Demonstrate evidence-based treatment. – Dr. Joseph Quevedo*

- *We all know where each of our weaknesses and strengths are. Define your weaknesses early and challenge them before you sit for the Oral Exam. – Dr. Shahrokh Shabahang*
 - *When preparing for the Oral Examination, remember that the exam can and will encompass more than clinical endodontics. Special patient management should be as important in your preparation as is endodontic literature. – Dr. Jay K. Taylor*
 - *First, get a grasp of exactly what is expected of you. Second, plan your approach and strategy for studying and timelines. Use study techniques that work for you. Consider recording on iPod critical data. Use the College of Diplomates guidelines and study guides – Dr. Paul Anstey*
 - *There is so much information to review for the Oral Exam that it seems overwhelming at times. It is important to figure out how you will organize and study the material. The study aids on the College of Diplomates website (www.collegeofdiplomates.org) are helpful. – Dr. Kweli K. Carson*
 - *Study for 3 - 4 months before the exam. It is difficult to retain the information for a longer period. Use the summary of information the Board provides as a guideline. - Dr. Thomas F. Gerrets, Jr.*
 - *Bottom line: Be able to quote the literature and discuss medically complex patients. Dr. James D. Isett*
 - *First, I would suggest reading textbooks, such as *The Dental Pulp and Pathways of the Pulp*. It is a good beginning as far as getting your thoughts organized and developing references. - Dr. Joslyn A. Jenkins*
 - *Relax. Take a review course to focus on current topics and review classic literature as your foundation. Dr. Joseph F. Palermo*
 - *STUDY! Study everything and you will still feel unprepared! Take out a few hours each night to study. I tried to do this six months in advance. Think of each step you perform clinically and justify it with literature. A mock Oral Exam is important or at least try to practice speaking out loud as you study. I did attend the Board review courses (at Michigan and at Baltimore) and the ABE Boardwalks (held at the AAE annual session) which I found helpful in preparing for the Case History and Oral Exams. - Dr. Carol Diener Weber*
 - *Start studying early! Have study partners that will ask you questions that you need to answer orally. This will help you get used to articulating your answers. - Dr. Rolf M.W. Wuerch*
 - *Know dental management of medically compromised patients, and review oral pathology and oral radiology! - Dr. Qiang Zhu*
- **Practice**
 - *Have a study partner...hold mock exams...be both examiner and examinee. – Dr. Helmut Walsch*
 - *My mentor gave me mock orals. This was probably the most helpful single thing in preparing for the Orals. – Dr. Joseph M. Morelli*
 - *Having a mentor provided different opinions and developed insight into topics and exposed areas needing more investigation. – Dr. Marc Levitan*
 - *Practice orally with a recent Diplomate. Knowing this info is one thing.....putting it to words is another. Like anything else in life, PRACTICE!! – Dr. Jason Bergman*
 - *Have conscientious, explicit and judicious reasoning for everything you perform in your practice, and provide the research(s) to support those principles. Practice, practice, practice. Verbalizing your thoughts is paramount to succeeding, and mock boards are the best way to do that. Dr. Anita Aminoshariae*
 - *Have a colleague or mentors quiz you, this forces you to verbalize your answers and allows for feedback. Lt. Col. Brian Bergeron*

- *Not only is studying important, but you also need to be able to eloquently verbalize that knowledge. Utilize your mentor to do the mock Oral Exams through the preparation process. – Dr. Margot Kusienki*
- *The Orals require that you organize your thoughts and responses rapidly in front of some very big names. Practice with someone who makes you feel slightly intimidated. You will get flustered; the trick is to recover rapidly and move on to the next question. – Dr. Vincent R. Jones*
- *You have to be 200% familiar with the literature because you do not have much time to organize your thoughts during the examination. Basically, make the literature pop into your head like a reflex. – Dr. Ming-LI Emily Kuo*
- *As you treat your patients throughout your day ask yourself and write down questions such as, why do I use this material, procedure or what options exist? What evidence is there to support or dispute certain options or alternatives? Why is this patient on this or that drug? What could go wrong and how would I handle it? – Dr. Patrick W. White*
- *The Oral is a case-based question and answer period. The cases are meant to reflect clinical practice. They have some amount of complexity but are not impossible. After a day at the office, write down the medical history or case complications encountered. Review that topic; make note cards, list cures (medications) and complications. Repetition of disease processes, case types will develop. Repeated review will prepare you and over time, a breadth of information will be reviewed. – Dr. James Stich*
- *Having a study partner is helpful as well. Dr. Ronald Taylor and I would get together on the weekends to go over the material and test one another. In addition, one of my mentors, Dr. Lynne Baldassari-Cruz, administered a mock Oral Examination which was extremely helpful. I cannot stress how important it is to verbally articulate your answers when preparing for the Oral Exam. You may feel that you have a good understanding of the information, but knowing the information, and being able to explain the information are two totally different things. Also, practice responding to potential questions in the mirror – I wish I had done more of this myself. – Dr. Kweli K. Carson*
- *Having a mentor with a working knowledge of current literature was invaluable, as was a formal mock oral which attempted to replicate the real thing as close as possible. - Dr. Tracy M. Clark*
- *A month or two before the exam find someone to study with. I had a partner and we would practice scenarios with each other. Forcing yourself to say an answer with references, to someone who knows the answer, turned out to be extremely helpful. It really boosted our confidence. Dr. Joslyn A. Jenkins*
- *Verbally express what you are studying to familiarize yourself with references and information. The ability to coherently relay the information is as important as learning it. - Dr. Troy L. McGrew*

Strategies for Taking the Exam

- *When taking the exam it is important to have an organized way to gather all initial information when the test starts. It should be practiced in a way to consistently not leave out any critical information, i.e. medial history, blood pressure, etc. Do not forget to ask for more information from the examiners as necessary, whether it is a radiograph(s), or even a clinical picture, if indicated. Try to get the first part of the exam off to as smooth a start as possible. This will help you to stay calm and recall information as the exam progresses. Try to find a study partner and or ask someone qualified to conduct a mock exam. The right strategy in taking the Oral Exam is as important as what you know. Dr. John M. Lies*
- *Try not to get flustered if you don't know every answer – you are not supposed to! They are trying to quickly determine the depth and breadth of your knowledge. – Dr. Lester J. Quan*

- *My suggestions are: 1) Think through the questions before answering, 2) Answer only the information asked in the questions, 3) Be succinct but thorough when answering, 4) Cite literature to correlate with responses whenever possible, 5) Candidates will not be able to answer every question. Don't linger or focus on questions you cannot answer. Instead, pass on the question and concentrate on answering the next one! - Dr. Marc Levitan*
- *The approach I had taken for the Oral Exam was to know and justify everything I do clinically. Be able to support your statements with the literature. Quiz yourself with a mentor. You don't want to be flustered under stress. You need to know things inside and out. – Dr. Lauren Mitchell*
- *Use literature citations to answer every question. – Dr. Rory Mortman*
- *Find a quiet location where you can study undisturbed. Try to study at least one hour each night. As you get closer to the date of the examination, try to review topics orally with a mentor/spouse/study partner. – Dr. Luis A. Chamorro*
- *The most difficult process in preparing for the Oral Examination was getting organized and getting back into a study routine. My goal was to begin 6 months prior to the exam as I could only set aside a small amount of time each day to prepare. Once I started and built momentum, the preparation process became routine and even my staff got involved in quizzing me from the study guides I created. I found audio tapes of my study guides to be very useful while commuting to work (if you don't mind listening to the sound of your own voice over and over again). There were many days that my commute was the only time I had available to prepare. - Captain Stuart O. Miller*
- *While the exam is a total of only 1 1/2 hours long, the Board does an excellent job of covering all aspects of treatment in each of the three 30 minute sessions. There is enough time to answer all of the questions but be succinct with your answers. The Board members want you to pass and they try to make you as comfortable as possible. - Dr. Thomas F. Gerrets, Jr.*

Pet Peeves

These Pet Peeves concentrate on the most stressful part of the exam, the Orals.

The entire Board was surveyed. Each Director was asked to list at least three of their most egregious peeves during the Orals. It is one thing to list all the “do’s” when answering questions, but what about the little things that could be done better to negotiate your way through your three thirty minute sessions without raising the eyebrows of the directors. Hence, the Pet Peeves. These are not fatal errors, but enough of them and the interviewing Director(s) will have a tendency to view your Oral Examination less favorably.

The two greatest areas of peevisshness deal with literature citations and the pace of the examination process, mentioned by no less than four Directors. The remaining peeves were mentioned by only one or two. So please read on and consider the comments from the Directors.

References!

- Use references when indicated or asked for.
- References are to be used to justify your comments.
- Unlike the Written Exam, during the Orals there are almost no instances where we ask for a specific author.
- Failure to use any literature citations to support an answer or using too many references from the 60’s and 70’s when more relevant and current literature is available.
- A Candidate should be able to quote the classic literature from our specialty, at a minimum, to support a position. Don’t quote “sponsored” speakers as a justification on clinical issues and treatment procedures. Especially if those issues are controversial and not backed up by the literature.

Trying to Control the Pace of the Examination

- The second most popular peeve - the Candidate that tries to control the pace of the questions.
- Keep in mind that the Directors must complete all ten sections of their scripted scenario.
- A Candidate that can’t completely answer a question should say so and then move on. Do not dwell on the question and then try and answer the question later on. Let it go. On the other hand, do not filibuster.
- Be concise with your answers. Brevity is a virtue.

Radiographs

- When asked to describe what is seen on the radiograph, leave nothing out!
- Do not fall prey to tunnel vision and describe only the tooth involved.

Pharmacology

- Candidates which have a limited or outdated knowledge of pharmacology. Be prepared to discuss current pharmacology as it relates to patient care.

Incorrect Diagnostic Terminology

- The candidate who uses outdated or wrong diagnostic terminology. Use the current diagnostic terminology when asked to make a diagnosis.

Medical History

- A candidate who fail to ask for the medical history and vital signs.

Biologic Basis

- Overall, not having a biologic basis for what they purport to do with a similar case in their office.

Advice

- A few Directors felt compelled to throw in a few words of advice along with their favorite peeve. This advice includes such hints as:
 - Don't be nervous,
 - The Board is there to test you knowledge and help you through the examination process.
 - Have a positive attitude.
 - Demonstrate confidence that you are well prepared for the exam.

One of the Directors expressed the thoughts of all of us on the Board when he said, "I wish they weren't so nervous. I have great admiration and respect for their effort."

We look forward to congratulating each and every successful Candidate and awarding them their pin at the Louis Grossman luncheon every year at the AAE Annual Session.

Oral Examination

Examination Dates

| Date | Location |
|---|-----------------|
| November 13 & 14, 2009 | Chicago, IL |
| April 12 & 13, 2010 | San Diego, CA |
| November 6 & 7, 2010 | Chicago, IL |
| April 11 & 12, 2011 | San Antonio, TX |
| The November dates for 2011 have not been confirmed | Chicago, IL |

Description

Examination questions cover the scope of endodontics as described in the *American Dental Association Accreditation Standards for Dental Education Programs*. Questions are developed from a clinical case history that is presented to the Candidate. The questions are standardized, weighted and based on competencies that define the level of knowledge expected of Board Certified endodontists. A broad foundation of literature is essential for successful completion of the Oral Examination.

Sessions

- ◆ There are three sessions in the examination.
- ◆ During each session, the Candidate spends thirty minutes with two Directors/Examiners.
- ◆ Each Examiner independently completes a confidential evaluation immediately after every examination session.

Process

The Oral Examination requires the Candidate to demonstrate his/her ability to:

- ◆ Apply basic and dental sciences to diagnostic and treatment decisions.
- ◆ Justify diagnostic and treatment decisions.
- ◆ Formulate primary and secondary treatment plans.
- ◆ Assess short and long term outcomes.
- ◆ Alter patient management because of local or systemic pathologic conditions, psychological status and ethical considerations.

Case Based Format

- ◆ Questions are designed to assess the Candidate's higher level cognitive skills including problem solving, decision-making, and the abilities to analyze, create and evaluate.
- ◆ The questions are based on competencies that define the knowledge base of a Diplomate of the American Board of Endodontics.

Topics

A Candidate will be expected to quote literature references to support his/her statements on the following topics during the examination:

- ◆ Radiographic Examination
- ◆ Subjective and Objective Examination
- ◆ Diagnosis
- ◆ Etiology
- ◆ Pathogenesis
- ◆ Application of Biological Principles
- ◆ Treatment
- ◆ Complications of Treatment
- ◆ Medical History
- ◆ Prognosis

Examination Confidentiality

Candidates sign the following confidentiality statement and examination policy on transcribing examination data prior to the examination:

“I understand that the content of the certification examination is proprietary and strictly confidential information. I hereby agree that I will not disclose, either directly or indirectly, any questions or any part of any questions from the examination to any person or entity. I understand that the unauthorized receipt, retention, possession, copying or disclosure of any examination materials, including but not limited to the content of any examination questions, before, during, or after the examination, may subject me to legal action. Such legal action may result in monetary damages and/or disciplinary action including denial or revocation of certification.”

Examination Scoring

The results of the Oral Examination are presented to the Directors of the Board by the Oral Examination Committee with a recommendation that those Candidates passing the Oral Examination be certified as Diplomates of the Board. The Secretary of the Board will notify the Candidates by letter whether they passed or failed the examination. .

Certificate

A certificate bearing the seal of the ABE and the signature of the Directors of the Board shall be awarded to each successful Candidate. Candidates who become Board Certified are required to pay an annual registration fee to retain their “active” Diplomate status.

Appeal Process for an Adverse Decision

A candidate who has received an adverse decision on the Oral Examination has the right to seek reconsideration of the adverse decision by filing a timely written request for reconsideration with the Secretary of the Board.

To be valid, the Secretary of the Board must receive the request for reconsideration within 30 calendar days after receipt by the Candidate of notice of the adverse decision. The request must contain a statement of why the Candidate believes that the adverse decision was improper and must include any supporting documentation that the Candidate wishes to have considered as part of the reconsideration. The request must be accompanied by a check or money order made payable to the American Board of Endodontics in the amount of \$100 to cover administrative costs associated with the appeal process. This fee shall not be refunded, regardless of the outcome of the appeal.

Sample Question

A twenty-five year old female is referred for evaluation and treatment of her mandibular first molar, tooth #19. She gives a medical history of malignant hyperthermia and history of allergy to penicillin. She relates canal treatment and placement of a crown by her general dentist in 1998. She notes swelling in the area that began last evening and has progressively gotten worse.

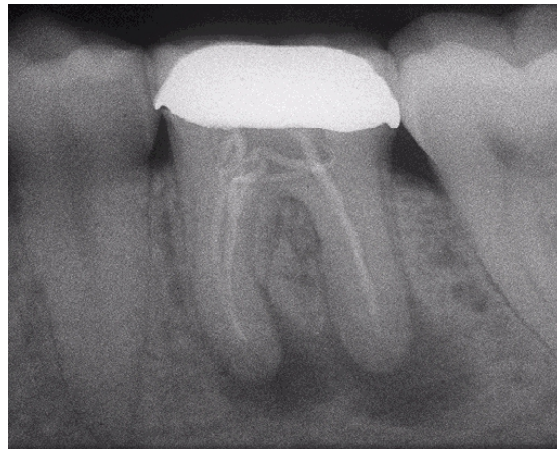


Radiographic Examination



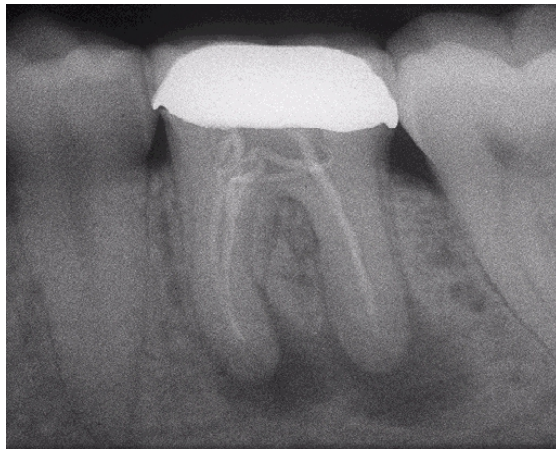
- Approximately how large is this lesion in relation to what is seen on this radiograph?
- What film do you use and why do you choose to use that film?
- What evidence is there in the literature to support the use of direct digital radiography in diagnosis of apical pathosis?

Subjective and Objective Examination



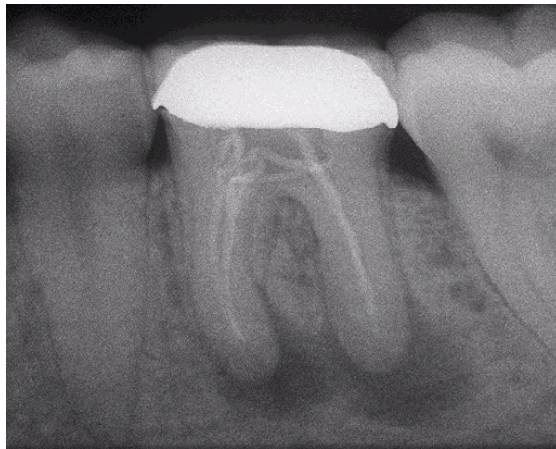
- **What diagnostic tests would you perform?**
- **Based on the literature what are the anatomic and morphologic variations of this tooth group?**
- **Discuss the pros and cons of culturing this case. What would you do in your practice?**

Diagnosis



- What is your diagnosis for this patient?
- Trace the sensory fibers that innervate the mandibular first molar as they progress toward the central nervous system.
- If this patient has referred pain from this tooth, where might it occur?

Etiology



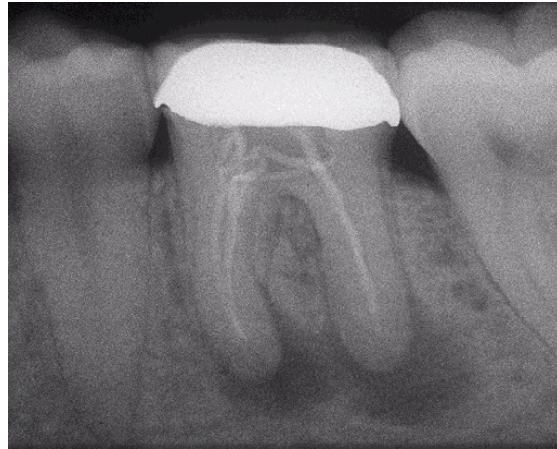
- **What is the probable source of infection?**
- **Compare and contrast the literature on the microbiology (etiology) of odontogenic infections from the sixties to today.**
- **Based on the literature, describe the organisms that might be present in this case.**

Pathogenesis



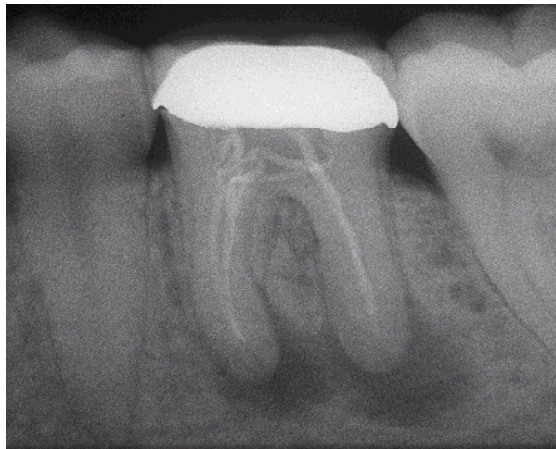
- **What facial spaces are involved? What are the anatomic boundaries of these spaces?**
- **Is it more difficult to obtain anesthesia in the presence of infection?**
- **The patient indicates that she has a temperature of 101°F. What role does fever play in the host's response to infection?**

Application of Biologic Principles



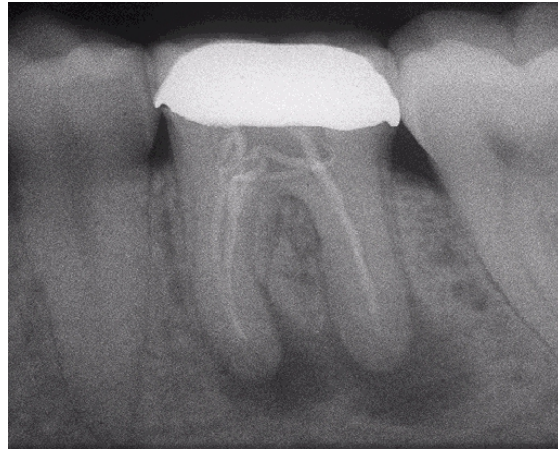
- What are the considerations regarding the choice of local anesthetic? What route of administration would you use?
- Describe the technique for administration of the Gow-Gates block and the nerves anesthetized.
- The general dentist treating this patient indicates that a Sargenti paste was used as a sealer. What evidence is there to refute the use of this material?

Treatment



- How should this case be treated?
- What evidence is there in the literature regarding the use of $\text{Ca}(\text{OH})_2$ as an intracanal medication?
- Is chloroform safe for use in retreatment procedures? Justify your answer using the literature.

Complications of Treatment



- During treatment the patient loses consciousness. What are possible etiologies? How would you manage this situation?
- The patient calls the next day and reports that her lip is still numb. What would you do?
- During retreatment a nickel-titanium file separates in the mesial lingual canal. What methods are advocated to retrieve the instrument?

Medical History



- **This patient has a history of malignant hyperthermia. Would you alter your treatment in any way?**
- **What anesthetic / analgesic / antibiotic would you prescribe?**

Prognosis



- **What recall schedule would you recommend for this patient? Why?**
- **Based on the literature discuss the success rates for retreatment procedures and compare these to the success rates for initial root canal treatment.**