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V3995

Local Anesthesia: Eliminating Misses and Near Misses

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Materials Included:

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PRACTICAL CLINICAL COURSES

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PRACTICAL CLINICAL COURSES
Sources of Products Discussed in

V3995 Local Anesthesia: Eliminating Misses and Near Misses

Presented by: Mel Hawkins, DDS, BScD AN & Gordon J. Christensen, DDS, MSD, PhD

1. **Articadent**
Dentsply Sirona
13320 Ballantyne Corporate Pl
Charlotte, NC 28277
(844)848-0137
(717)845-7511
www.dentsplysirona.com
2. **Carbocaine**
Septodont USA
205 Granite Run Drive
Suite 150
Lancaster, PA 17601
(800)872-8305
(717)286-0100
www.septodontusa.com
3. **Kovanaze**
St. Renatus, LLC
1000 Centre Avenue
Fort Collins, CO 80526
(888)686-2314
(970)282-0156
www.st-renatus.com
4. **Molt Mouth Gag**
Hu-Friedy Mfg. Co., LLC
3232 N. Rockwell Street
Chicago, IL 60618-5935
(800)483-7433
(773)975-6100
www.hu-friedy.com
5. **Molt Mouth Prop #907**
Karl Schumacher Dental, LLC
737 E. Elizabeth Avenue
Linden, NJ 07036
(800)523-2427
(215)322-0511
www.karlschumacher.com
6. **Orabloc by Pierrel**
Various Distributors
7. **Scandonest**
Septodont USA
205 Granite Run Drive
Suite 150
Lancaster, PA 17601
(800)872-8305
(717)286-0100
www.septodontusa.com
8. **Septocaine**
Septodont USA
205 Granite Run Drive
Suite 150
Lancaster, PA 17601
(800)872-8305
(717)286-0100
www.septodontusa.com
9. **Zorcaine**
Septodont USA
205 Granite Run Drive
Suite 150
Lancaster, PA 17601
(800)872-8305
(717)286-0100
www.septodontusa.com

Product names, the products themselves, and company names change rapidly. Please contact the companies shown to confirm current information.

Gordon J. Christensen Practical Clinical Courses, 3707 North Canyon Road, Suite 3D, Provo, UT 84604
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PROGRAM

V3995 Local Anesthesia: Eliminating Misses and Near Misses

CLINICIANS RESPONSIBLE:

Mel Hawkins, DDS, BScD AN

Founding Director, Intravenous Sedation Continuing
Education Program at the University of Alberta

Founding Director, Intravenous Sedation Program
at the University of Toronto

Private Practitioner (over 30 years), with special emphasis
on pain control and pain management

Gordon J. Christensen, DDS, MSD, PhD

Founder and CEO, Practical Clinical Courses
Senior Consultant & Previous CEO, CR Foundation
Practicing Prosthodontist, Provo, Utah

GOALS & OBJECTIVES

At the completion of this video presentation, viewers should be able to:

1. Discuss the prevalence of need for local anesthesia in dentistry.
2. Estimate the number of local anesthetic injections a dentist would do in one day.
3. Discuss the need to know oral/head and neck anatomy to have local anesthesia success.
4. Discuss the gauge of needles recommended for local anesthetic delivery.
5. Discuss purposely bending of needles.
6. Discuss important anatomical landmarks essential for adequate anesthesia of the inferior alveolar nerve.
7. Describe the lingula and its relationship to the inferior alveolar nerve.
8. Describe positioning of the syringe when doing an inferior alveolar nerve block.
9. Discuss where to inject for infiltration anesthesia of the mandibular first molar.
10. Describe the location of an injection for the long buccal nerve.
11. Describe the Gow-Gates injection.
12. Describe the influence of adipose cells in the site of the Gow-Gates injection.
13. List the most common reasons for failure blocking the inferior alveolar nerve.
14. Compare articaine with lidocaine.
15. Compare the concentration of articaine with lidocaine.
16. List five tips to assist in ensuring the success of an inferior alveolar nerve block.
17. Discuss the necessity of alternative local anesthesia techniques.
18. Discuss the alleged neurotoxicity of articaine.
19. Describe the recommended injections to anesthetize the entire mandibular dentition.
20. Discuss potential future changes in need for local anesthesia in dentistry.

OVERVIEW

V3995 Local Anesthesia: Eliminating Misses and Near Misses

The following are discussed in this presentation:

- The prevalence of need for local anesthesia in dentistry
- The number of local anesthetic injections a dentist would do in one day
- The need to know oral/head and neck anatomy to have local anesthesia success
- The gauge of needles recommended for local anesthetic delivery
- Bending of needles
- Important anatomical landmarks essential for adequate anesthesia of the inferior alveolar nerve
- The lingula and its relationship to the inferior alveolar nerve
- Positioning of the syringe when doing an inferior alveolar nerve block
- Where to inject for infiltration anesthesia of the mandibular first molar
- The location of an injection for the long buccal nerve
- The Gow-Gates injection
- Influence of adipose cells in the site of the Gow-Gates injection
- The most common reasons for failure blocking the inferior alveolar nerve
- Articaine vs. lidocaine
- A comparison of the concentration of articaine with lidocaine
- Tips to assist in ensuring the success of an inferior alveolar nerve block
- The necessity of alternative local anesthesia techniques
- The alleged neurotoxicity of articaine
- Recommended injections to anesthetize the entire mandibular dentition
- Potential future changes in need for local anesthesia in dentistry

SUPPLEMENTAL MATERIALS

V3995 Local Anesthesia: Eliminating Misses and Near Misses

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2. M M A, Khatri A, Kalra N, Tyagi R, Khandelwal D. Pain perception and efficacy of local analgesia using 2% lignocaine, buffered lignocaine, and 4% articaine in pediatric dental procedures. *J Dent Anesth Pain Med*. 2019 Apr;19(2):101-109. doi: 10.17245/jdapm.2019.19.2.101. Epub 2019 Apr 30.
3. Majid OW, Muhammad ZA. Effectiveness of Articaine Buccal Infiltration Anesthesia for Mandibular Premolar Extraction: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial. *J Oral Maxillofac Surg*. 2019 Mar 30. pii: S0278-2391(19)30359-3. doi: 10.1016/j.joms.2019.03.033. [Epub ahead of print]
4. Aggarwal V, Singla M, Miglani S, Kohli S. Efficacy of Articaine Versus Lidocaine Administered as Supplementary Intraligamentary Injection after a Failed Inferior Alveolar Nerve Block: A Randomized Double-blind Study. *J Endod*. 2019 Jan;45(1):1-5. doi: 10.1016/j.joen.2018.09.012. Epub 2018 Dec 6.
5. Kim C, Hwang KG, Park CJ. Local anesthesia for mandibular third molar extraction. *J Dent Anesth Pain Med*. 2018 Oct;18(5):287-294. doi: 10.17245/jdapm.2018.18.5.287. Epub 2018 Oct 31.
6. Gazal G. Is Articaine More Potent than Mepivacaine for Use in Oral Surgery? *J Oral Maxillofac Res*. 2018 Sep 30;9(3):e5. doi: 10.5037/jomr.2018.9305. eCollection 2018 Jul-Sep.
7. Albalawi F, Lim JC, DiRenzo KV, Hersh EV, Mitchell CH. Effects of Lidocaine and Articaine on Neuronal Survival and Recovery. *Anesth Prog*. 2018 Summer;65(2):82-88. doi: 10.2344/anpr-65-02-02.
8. Hawkins J Mel, Moore Paul A. Local Anesthesia: Advances in Agents and Techniques. *Dental Clinics of North America*. 2002 Oct;46(4):719-732.
9. Hawkins, J Mel; Meechan, G John. (2002). Local Anesthetic Techniques and Adjuncts. In *Management of Pain and Anxiety in the Dental Office* (pp. 178-203). Philadelphia, PA: W.B. Saunders.

POST-TEST

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1. Reason(s) for failure of local anesthesia in dentistry include(s):
 - a. clinician unfamiliarity with hard-tissue anatomy.
 - b. clinician unfamiliarity with soft-tissue anatomy.
 - c. neurovascular anomalies.
 - d. all of the above.

2. The coronoid notch:
 - a. has no anatomical significance to syringe guidance.
 - b. is the greatest indentation depth on the anterior border of the ramus.
 - c. is on the distal aspect of the ramus of the mandible.
 - d. none of the above.

3. Disadvantage(s) of the **conventional** inferior alveolar block include(s):
 - a. increased vascularity in the area.
 - b. anatomical variance.
 - c. macroglossia.
 - d. all of the above.

4. The Gow-Gates mandibular block:
 - a. is more difficult than the conventional inferior alveolar nerve block.
 - b. requires needle insertion slightly higher than the inferior alveolar nerve block.
 - c. requires needle insertion slightly lower than the inferior alveolar nerve block.
 - d. has faster onset than the inferior alveolar nerve block.

5. The long buccal injection:
 - a. provides anesthesia for the molars and premolars on the injected side.
 - b. provides anesthesia for molars, premolars, and anteriors on the injected side.
 - c. provides minimal anesthesia for the teeth.
 - d. none of the above.

6. Most dentists have the following number of injections for adequate anesthesia for the inferior alveolar nerve block:
 - a. 1
 - b. 2
 - c. 3
 - d. 4

7. Disadvantage(s) of the Gow-Gates injections include(s):
 - a. mouth must be **wide open**.
 - b. extraoral landmarks are missing.
 - c. post-injection, must **stay open 2 minutes**.
 - d. all of the above.

POST-TEST (CONT'D)

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8. Articaine:
- a. has more potential for producing paresthesia than lidocaine.
 - b. has less potential for producing paresthesia than lidocaine.
 - c. has the same potential for producing paresthesia than lidocaine.
 - d. never produces paresthesia.
9. Articaine:
- a. is used less than lidocaine in USA dentistry.
 - b. is more toxic than lidocaine.
 - c. has slower onset than lidocaine.
 - d. is used more than lidocaine in USA dentistry.
10. Articaine:
- a. has been available in Germany and France since 1976.
 - b. has ~90% of the market, in Canada since 1983.
 - c. has been in the United States since 2000.
 - d. all of the above.

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