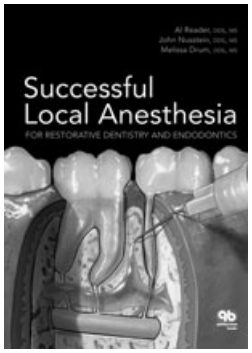
Book Review

Successful Local Anesthesia for Restorative Dentistry and Endodontics



By Al Reader, DDS, MS, John Nusstein, DDS, MS, Melissa Drum, DDS, MS. Quintessence Publishing Co, Inc, Hanover Park, IL, 2011: ISBN: 978–0-86715–513-6; 174 pages; 207 illustrations (mostly color); price $76.

Today's dental patients expect to feel no discomfort during a procedure. With very few exceptions, this can be achieved on a routine basis by any practicing dentist. As such, the authors wrote this book to update clinicians on the most recent materials and techniques now available for achieving successful local anesthesia. In addition to presenting some basic information most of us learned while in dental school, the authors also include data from extensive research performed in the graduate endodontics clinic at The Ohio State University College of Dentistry. This research is routinely quoted by endodontists during their board certification process, as the authors are highly respected within the endodontic community.

The book is comprised of seven well-written, logically organized chapters that include photographs, illustrations, tables, and algorithms for direct presentation of material to the reader. Each chapter is divided into various sections, with each section's topic objective clearly identified and thoroughly discussed in a very "to the point" manner. At the end of most sections, the authors highlight the take-home message conveyed by summarizing the given section in a one- or two-sentence "IN CONCLUSION" message. Each chapter is then closed with the authors' "Final Thoughts." Because of the authors' clear labeling, succinct writing style, valuable use of tables and illustrations, and provision of excellent recaps throughout the text, the reader can easily locate topics of interest in this book and subsequently increase his/her knowledge on the topics efficiently and effectively.

The book begins with a review of clinical factors relating to local anesthesia. The authors summarize pulp testing techniques, factors that affect local anesthesia, and local anesthetics available in the US. They also discuss discomfort associated with delivery of local anesthetics and management of patient anxiety. Chapter 1 presents a review of information with which dental clinicians should be familiar before administration of local anesthetics.

Chapters 2 through 4 are devoted to mandibular and maxillary anesthesia and supplemental anesthesia techniques. The success rates of the inferior alveolar nerve block (IANB) and maxillary buccal infiltration for achieving pulpal anesthesia with 2% lidocaine with 1:100,000 epinephrine are presented for each mandibular and maxillary tooth. The onset and duration of pulpal anesthesia, soft tissue anesthesia, and alternative anesthetic solutions are also summarized. The authors discuss alternative injections to the IANB, including the Gow–Gates and Vazirani–Akinosi techniques, as well as reviewing supplemental techniques such as buccal infiltration injections with articaine, intraosseous injections, and intraligamentary injections. The posterior superior alveolar nerve block and infraorbital nerve block are among the techniques discussed as alternatives to the traditional maxillary buccal infiltration.

One concern regarding the presented research is the method by which the authors assess pulpal anesthesia. They consider pulpal anesthesia to be achieved when two consecutive readings of 80 are obtained with the electric pulp test (EPT) within 15 minutes of injection. Using this method of gauging pulpal anesthesia, the authors report that there is no difference in success between lidocaine and articaine for the IANB. Based on clinical experience, it is the reviewers' opinion that pulpal anesthesia cannot be gauged by use of EPT alone. A better method of determining pulpal anesthesia would be absence of pain upon accessing the pulp chamber. If this method was used, it may be found that articaine is a superior anesthetic to lidocaine for obtaining pulpal anesthesia with the IANB.

The final chapters of the book, Chapters 5 through 7, focus on describing how to achieve successful anesthesia for operative and endodontic procedures. The authors provide algorithms for anesthetizing each maxillary and mandibular tooth both in situations when the pulp is uninflamed and when a diagnosis of irreversible pulpitis has been made. By supplying the reader a method to assess pulpal anesthesia and the subsequent actions to be taken if anesthesia has not been achieved, the authors provide the clinician with the tools needed to ensure patient comfort during any procedure.

In summary, the reviewers feel this textbook is a valuable reference for both a practicing clinician and a beginning dental student and will likely be considered the "gold standard" of local anesthesia textbooks in the near future. The book provides a great summary of knowledge previously scattered throughout numerous journals and not readily available to the dental community.

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