

Attending dentistry 1999: The imperative of endodontics

Clinical excellence, now more than at any time in the history of dentistry, relies on an individualized strategy for professional development. Most of us call that "lifelong" learning. With the dramatic increase in treatment outcome expectations among patients around the world, the attending doctor is increasingly pressed to maintain diagnostic competency across all of dentistry and a large part of medicine. Over the next few years, we will attempt to cover some major disciplines of dentistry in comprehensive reviews of evidence-based current thinking.

Endodontics is an appropriate area in which to begin because people no longer expect to lose their teeth. The successful attending dentist of the millennium will recognize this and will offer endodontic services through expanded personal competencies and referral networks.

Uncounted millions of teeth are retained each year by use of both preventive and therapeutic strategies. Attending dentists (those dentists bearing primary ongoing responsibility for a patient) around the world will benefit from recent developments in endodontic therapy that assure a higher level of predictable success.

Among those developments are the increased use of digital radiography, powered rotary filing systems, and the advent of operating microscopy, enhanced illumination, and intraoral imaging systems. New, effective, non-narcotic analgesics are available for the management of pain. Even the mundane world of isolation has some wonderful innovations, like nonlatex dental dam material (Hygienic Corporation, Akron, Ohio) for the growing numbers of latex-sensitive individuals, serrated rubber dam clamps (Miles Dental Products, South Bend, Indiana) for increased rubber dam retention in cases of badly decayed teeth, and OraSeal caulk or putty material (Ultradent Products, South Jordan, Utah) for all sorts of sealing and block-out needs.

However, at the same time more teeth are being saved, new perplexities arise. One of those perplexities, and the focus of this issue and last, is the phenomenon of tooth resorption and its management. The first and fundamental necessity for successful treatment of endodontic problems is a correct diagnosis and a full understanding of the comprehensive, sequential management of the condition.

Anything that injures or irritates dental pulp or the periodontal ligament complex leads to inflammation, which can trigger the cell activation and biochemical cascades of the resorptive process. The delicate interactions of "clast" and "blast" cells and the chemical events triggered by their associated enzymes, cytokines, and other chemicals become imbalanced and lead to the various forms of tooth resorption.

Some major irritating factors that are common in everyday practice are orthodontic therapy, trauma, pulpal infection, and bleaching. Either alone or in combination, these ordinary events can trigger potentially disastrous results. In addition to using extreme procedural care, particularly when bleaching nonvital teeth, careful follow-up observations help insure early diagnosis and treatment intervention if signs of tooth resorption appear.

The astute clinician will watch for such possibilities on behalf of the patients he or she is responsible for. The articles by Heithersay (January issue, page 27, and this issue, pages 83 and 96) and by Ne, Witherspoon, and Gutmann (January issue, page 9) offer contemporary insight into tooth resorption and serve as a wonderful beginning for stimulating readers into updating their command of the issues surrounding endodontics in 1999 and beyond.

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