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Greetings!

Welcome summer...even though it took us into July to get to it!!! Maybe it is those blasts of fireworks that magically scare the clouds away and bring us the warm temperatures. I guess it really doesn't matter....Summer is here!!! It is hard to believe that we are officially into the 3rd quarter of the year. This year has already been and exciting and is quickly passing by. I thank those of you that came out and shared Sherry and my special day.

She always enjoys getting to know our referring offices. Don't be surprised if she pops her head in to say hello! Another great year for CE Credits at the University of Victoria November 8-12th; checkout their website, www.continuingstudies.uvic.ca. Let's fish, make wine BBQ and enjoy the summer!

Patient Satisfaction After Nonsurgical Root Canal Treatment

To evaluate patient satisfaction and quality of life after primary root canal treatment—as well as the association between the level of clinicians' training and experience on these parameters—Hamasha and Hatiwsh from Jordan University of Science and Technology studied a random sample of 302 patients undergoing root canal treatment. Patients received treatment from either an undergraduate dental student, a graduate dental student or a faculty member and were interviewed before and 2 weeks after completion of root canal treatment. The study utilized the Oral Health Impact Profile (OHIP) questionnaire and 7 semantic differential scales.

The authors found a noticeable improvement in the quality of life after root canal treatment. Satisfaction with the time required for root canal treatment revealed that patients were significantly more satisfied with the rapid treatment provided by specialist and graduate students than with that provided by undergraduate students (p less than .05). More than 90% improvement postoperatively was noted for pain, eating and difficulty relaxing.

Satisfaction with root canal treatment was not associated with age, gender or smoking status. Patients with higher incomes were more satisfied with the root canal treatment and felt their treatment was more pleasant than were those with lower incomes (p less than .05). Patients receiving root canal treatment for their anterior teeth reported a higher rating for semantic differential scores in the items of postoperative aesthetic and time involved compared with that related to treatment of posterior teeth (p less than .05). On the other hand, satisfaction of chewing ability was higher for posterior teeth compared with that of anterior teeth (p less than .05).

Adequately tapered root fillings yielded more improvement scores because of better cleaning and shaping, and fewer symptoms.

Root canal treatment of teeth with vital pulps, in general, relieved acute symptoms (e.g., pulpitis), thus yielding better outcomes in terms of quality of life. Treatment of teeth in patients exhibiting poor oral health, including gingivitis or missing teeth, may generate better treatment outcomes and thus produce more improvement in their quality of life.

Conclusion

The impact of root canal treatment on quality of life was significant. More than 90% of patients reported improvement in OHIP after root canal treatment. Using the 7 scales of satisfaction, endodontic specialists generated higher satisfaction rates.

Hamasha AA, Hatiwsh A. Quality of life and satisfaction of patients after nonsurgical primary root canal treatment provided by undergraduate students, graduate students and endodontic specialists. Int Endod J 2013;46:1131-1139.

Preoperative Ibuprofen and Inferior Alveolar Nerve Block

Profound anesthesia is the goal when treating patients who present to the dental office with symptoms of irreversible pulpitis. Inferior alveolar nerve block (IANB) is the standard injection technique used to achieve regional anesthesia for mandibular molar treatments. Studies have shown that the IANB technique fails in 30% to 90% of these cases.

To evaluate the effect of preoperative oral ibuprofen on IANB with 2% mepivacaine containing 1:100,000 epinephrine for patients with symptomatic irreversible pulpitis, Noguera-Gonzalez et al from Universidad Autónoma de San Luis Potosí, Mexico, conducted a prospective, randomized, double-blind, placebo-controlled study.

The study included 2 study groups, each consisting of 25 patients who exhibited symptomatic irreversible pulpitis of a mandibular posterior tooth. The patients presented prolonged moderate or severe pain (longer than 10 seconds) after cold testing and indicated their pain scores on a Heft-Parker visual analog scale. The patients received identically appearing capsules containing either

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600 mg ibuprofen or gelatin placebo 1 hour before administration of IANB with 2% mepivacaine containing 1:100,000 epinephrine.

After 15 minutes, the anesthetic blockade was assessed by a 3-step examination (lip numbness, positive/negative response to cold testing and clinical discomfort during endodontic access). IANB success was defined as the absence of pain during any of these evaluations.

After IANB, all the patients reported lip numbness. Statistically significant differences were measured between the ibuprofen and placebo (p less than .05); the IANB success rates were 72% (18/25) in the ibuprofen group and 36% (9/25) in the placebo group.

Table 1 indicates the pre- and postoperative pain in both treatment groups. At 24 hours, only 4 patients had moderate-to-severe pain (1 in the ibuprofen group and 3 in the placebo group). At 48 hours, no patients reported pain. No patient reported adverse effects or flare-ups from ibuprofen or placebo.

The results of this study allow for the following hypotheses:

- Selection of mepivacaine over lidocaine may achieve superior levels of anesthesia during inflammatory conditions, such as irreversible pulpitis, especially when the expression of tetrodotoxin-resistant sodium channels is up-regulated.
- Premedication with ibuprofen plays an important role in controlling the expression of prostaglandin E2 in peripheral and central tissues, where overexpression is observed during painful dental inflammation. This factor might contribute to improved anesthetic blockade during painful clinical conditions.
- Premedication with ibuprofen may indirectly enhance the effect of mepivacaine by reducing the expression of tetrodotoxin-resistant sodium channels.

Conclusion

Preoperative oral administration of ibuprofen significantly improved the efficacy of mepivacaine IANB in patients with symptomatic irreversible pulpitis.

Noguera-Gonzalez D, Cerda-Cristerna BI, Chavarría-Bolaños D, et al. Efficacy of preoperative ibuprofen on the success of inferior alveolar nerve block in patients with symptomatic irreversible pulpitis: a randomized clinical trial. Int Endod J 2013;46:1056-1062.

Patient Preferences for Treatment of Apical Periodontitis

Apical periodontitis (AP) is a prevalent disease that represents a host response to the infection of the root canal systems of the affected teeth. The tooth with AP can be treated with root canal treatment (RCT) with the intent of retaining the affected tooth, or be extracted. If the infected tooth is extracted, the space can be left edentulous or subsequently restored with a removable or fixed bridge, or an implant-supported crown (ISC).

Dentists' preferences notwithstanding, the important ethical principle of patient autonomy suggests that patients' values should play a substantial role in clinical decisions. It appears that information on patients' thought processes and preferences for the

management of teeth with AP is lacking. Thus, Azarpazhooh et al from the University of Toronto, Ontario, explored patient preferences for management of a tooth affected by AP, when considering its retention via RCT vs its extraction.

The study used a cross-sectional mail-out survey. The sampling frame randomly selected 800 patients who had previously been treated in the graduate endodontics, periodontics or prosthodontics clinics (n = 200 per clinic), or who were scheduled to receive RCT or ISC (n = 200). This was complemented by a convenience sample of patients in 10 community practices in Toronto (n = 200). Participants were asked to select their general preference for anterior and posterior teeth with AP between saving the tooth or extraction, and their specific preference for tooth retention via RCT or extraction.

Responses to the 4 preference questions are summarized in Table 2. Participants' specific preference for tooth retention via RCT was slightly but significantly lower than their general preference (anterior tooth, 93.7% vs 97.2%; posterior tooth, 83.8% vs 89.6%; p less than .005). Higher annual income, previous RCT, functional dentition, good/excellent self-rated oral health and regular dental visits were associated with higher preferences for tooth retention in response to different questions.

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After 15 minutes, the anesthetic blockade was assessed by a 3-step examination (lip numbness, positive/negative response to cold testing and clinical discomfort during endodontic access). IANB success was

Table 1. Pre- and postoperative pain between groups

Group	Preoperative pain (%)		24-hour postoperative pain (%)		
	Moderate	Severe	Moderate	Severe	No pain
Placebo	16/25 (64)	9/25 (36)	2/25 (8)	1/25 (4)	22/25 (88)
Ibuprofen	13/25 (52)	12/25 (48)	1/25 (4)	None	24/25 (96)

defined as the absence of pain during any of these evaluations.

After IANB, all the patients reported lip numbness. Statistically significant differences were measured between the ibuprofen and placebo (p less than .05); the IANB success rates were 72% (18/25) in the ibuprofen group and 36% (9/25) in the placebo group.

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Table 2. Treatment preferences

Preference question	n	%
General preference questions		
Saving an anterior tooth vs extraction: If you develop an ache in a FRONT tooth, would you prefer to treat the tooth and retain it or to pull it out?		
Treat and retain it	413	97.2
Pull it out	12	2.8
Saving a posterior tooth vs extraction: If you develop an ache in a BACK tooth, would you prefer to treat the tooth and retain it or to pull it out?		
Treat and retain it	381	89.6
Pull it out	44	10.4
Specific preference questions		
Saving an anterior tooth via RCT vs extraction: If you develop an ache in a FRONT tooth, would you prefer to treat the tooth and retain it or to pull it out?		
RCT and restoration	399	93.7
Pull it out	27	6.3
Saving a posterior tooth via RCT vs extraction: If your dentist said this aching BACK tooth would have to receive RCT and restoration to be retained or be extracted, what would you prefer?		
RCT and restoration	356	83.8
Pull it out	69	16.2



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 Selected Friday appointment reserved for same day emergencies only.
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