



Endodontic emergencies

Classification, scheduling and treatment

One of the endodontic questions I am most frequently asked is how to predictably manage endodontic emergencies. A genuine endodontic emergency represents an interruption into an otherwise busily scheduled practice day.

Much of how a dental team reacts to an emergency patient is based on training, judgment, and experience. There are three critical questions your dental team should be trained to ask an emergency patient to protect your already thoughtfully scheduled day.

1. How bad would you rate your pain?
2. How long have you been in pain?
3. Is there a stimulus that triggers your pain?

Your team should be taught to carefully clarify each question so the patient can be scheduled at a time that is least disruptive to you, your team, and regularly scheduled patients. You want to triage true emergency patients who need urgent care from non-emergency patients. Other variables that influence the management of emergencies include: Is the patient currently anesthetized or taking any medication that could mask the chief complaint? Is the pain associated with a maxillary vs. a mandibular or a single vs. a multi-rooted tooth?

Endodontic emergencies may be divided into three types. There are vital emergencies, necrotic emergencies, and emergencies associated with endodontically failing teeth. Each type of emergency requires a different treatment approach and length of chair time to successfully manage. The essential tenet in providing emergency endodontic treatment is to promptly eliminate pain and reschedule when there is adequate time to provide definitive care. The following will provide an overview on how I handle endodontic emergencies.

Vital emergencies

In this type of endodontic emergency, the patient may report a range of symptoms, but the classic chief complaint is an immediate, painfully intense, and prolonged response to a cold stimulus. It is a fact that, of the three types of endodontic emergencies, vital emergencies typically require the most chair time to definitively manage. For example, achieving profound anesthesia can be challenging, and considerable bleeding should be expected upon entering the pulp chamber. In these situations, it is important to remember the Hippocratic Oath, which states, "Do no harm while doing good."

Once you have identified the culprit tooth and achieved profound anesthesia, retest this tooth with a cold stimulus before isolating with a rubber dam. If your patient still feels cold, it will require supplemental anesthesia, like an intraosseous or interligamentary injection. Emergency treatment is directed toward preparing an endodontic access cavity and amputating the pulp chamber tissue from the radicular tissue at the level of the orifice(s). If bleeding is quickly arrested, place a dry cotton pellet and provisionalize the tooth.

However, many highly inflamed pulps continue to vigorously bleed after completing the pulpotomy. In these instances, the most predictable emergency treatment requires that the pulp be completely extirpated from any given canal that bleeds excessively. Leaving inflamed pulp, deep within the canal, does

not routinely eliminate pain post treatment and invites anesthesia difficulties on the next working visit. Within reason, I do not place an instrument into any canal unless I can be definitive. If practical, reduce the occlusion either before, during, or after preparing the endodontic access cavity. Be willing to free up your schedule so you can provide definitive emergency care.

Necrotic emergencies

In this type of endodontic emergency, the classic chief complaint is severe pain to a hot stimulus, biting pressure, and possible intraoral and/or extraoral swelling. Radiographically, these teeth frequently exhibit lesions of endodontic origin. Performing emergency treatment on necrotic teeth is more straightforward compared to vital teeth. Anesthetize, isolate, and perform an emergency pulpotomy...only! Adjust the occlusion, if practical, place one large, fluffy cotton pellet in the access cavity, and if you're looking for the most predictable result, leave the tooth open!

Visualizing productive drainage emanating from the pulp chamber of a necrotic tooth is a reassuring confirmation that the patient will subsequently describe the emergency treatment as a "miracle" visit. On the other hand, just because you do not see an exudate does not mean there will not be relief of pain. Appreciate that putrescent necrotic tissue frequently contains gas-producing microorganisms. Intentionally leaving an acutely painful and necrotic tooth open for 3 to 4 days for drainage is exactly analogous to a surgeon performing an incision and drainage (I&D), then placing a drain to prevent wound closure and to encourage subsequent drainage during the acute phase of infection. Prescribe the appropriate antibiotic and anti-inflammatory. Give "open tooth instructions" and schedule the next visit so there is sufficient time to shape, clean, and pack this tooth from the open position while the patient is still on the antibiotic.

Failing endodontic teeth

In this type of endodontic emergency, the patient typically reports severe spontaneous pain, acute pain to biting pressure, and at times, swelling. Diagnostic radiographic images reveal a history of previous root canal treatment, and frequently, lesions of endodontic origin. These infected, endodontically failing teeth should not be disassembled during the acute phase of the disease process. Palliative emergency treatment is directed toward adjusting the occlusion, if practical, prescribing the appropriate antibiotic and anti-inflammatory, and if necessary, a narcotic. After 3 to 4 days, these patients are typically scheduled for a working visit when the infection, and hence the pain, have been controlled.

Predictably managing emergency patients is a practice builder and gives you and your team the opportunity to make a genuine difference in your patient's life. Keep this on your radar. **ED**



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