

INTRODUCTION

Sodium hypochlorite (NaOCl) extrusion beyond the apex, also known as “a hypochlorite accident”, is a well-known complication that occurs during root canal therapy. Successful endodontic therapy requires shaping and cleaning of the root canal system. Irrigation with NaOCl is an important adjunct to accomplish this goal. One negative property of NaOCl is that it can cause soft-tissue inflammation if it is expressed outside the confines of the root canal.

ETIOLOGY

NaOCl toxicity to organic tissues is very high, improper use may result in severe symptoms and complications. According to reports, extrusion of NaOCl solution into periradicular tissues during root canal treatment occurs more readily when there is a perforation or wide apex in the treated tooth combined with uncontrolled irrigation force.

DIAGNOSIS

1. Acute pain, swelling and redness
2. Bruising
3. Progressive swelling involving the infraorbital area or mouth angle
4. Profuse hemorrhage
5. Numbness or weakness of facial nerve
6. Secondary Infection

PHOTOS



PREVENTION

To prevent NaOCl accidents, initial radiographs should be taken to verify the length of the canal. Careful evaluation of the integrity of individual canals is essential. Avoid binding the irrigation needle in the canal wall. A gentle injection motion should be used.

COMPLICATIONS

Common complications from NaOCl accidents include eyes burning, allergic reactions, pain and swelling, bruising, nerve damage, airway obstruction and secondary infections.

TREATMENT

Treatment should focus on the principles of minimizing swelling, controlling pain and preventing a secondary infection. Proper home care instruction and antibiotic therapy for prevention of secondary infection.

REFERENCES

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