Accidental Injection of Formalin in Dental Operatory: Case Report

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ABSTRACT

Introduction: Dentist in riverside provides a friendly touch to their patients. Inspite of precautionary measures being taken during the various dental treatment procedures yet complications do occur. In Dentistry formalin is commonly used for preserving tissue samples and for histological examination and related disciplines this process is known as fixing. In this compound the protein molecules are linked together making it easier to prepare thin slices for microscopic examination. As the treatment of pain related to dentistry cannot be provided without the use of local anaesthesia but sometimes mishappenings occurs in using such drugs due to negligence and inadequate knowledge.

Case report: This is a case report of a male child patient with an accidental injection of formalin during dental procedure followed by its successful management.

Conclusion: Thorough knowledge of the medicament to be used is mandatory for both the operator as well as the assistant.

Keywords: Formalin, Antibiotics, Steroids

INTRODUCTION

Formalin is colorless liquid resembling local anesthetics used for preservation of tissue prevents decay and acts as an embalming agent. If swallowed it has a corrosive effect on the mouth, tongue and esophagus, systemically causes kidney failure sometimes leading to coma. At low levels, it is irritating to nose and can cause headache to bronchitis and emphysema. Myocardial depression can occur if 50-100 ml. of formaldehyde is ingested.¹ Contact with the skin may cause irritation or dermatitis. Eye contact with very dilute solutions causes irritation, but higher concentrations may damage the cornea and loss of vision.

CASE REPORT

An eight year old male child reported to the Department of Pedodontics and Preventive Dentistry, KD Dental College and Hospital, Mathura with a chief complaint of pain in the upper right and left back tooth region of mouth since one month. Thorough Clinical and radiographic examination was done (Figure 1- Deep Carious lesions on Maxillary Posterior Teeth) which revealed that there is a deep carious lesion involving pulp. Treatment plan was Medication and Pulpectomy followed by Stainless Steel Crown. Patient had no relevant medical history and all the vital signs were normal. Buccal infiltration was given on the left side for endodontic procedures. In case of such complications it is important not to panic at that time rather to handle the situation with utmost care. This case was treated in the same department using conservative approach. A case reported by Saujanya KP et al also preferred a conservative approach in handling such case.² Another method for management can be

DISCUSSION

When an individual sustains an injury as a direct consequence of dental treatment that he has received, this may constitute an act of dental negligence. Complications occur in the dental office either due to negligence of dentist or the assistant. The most common cause of negligence for injecting formalin is because it is colorless resembling local anaesthesia and stored in the same vial for preserving specimens to conduct histological examination.³ Another reason might be the wearing of face mask by the operator due to which the pungent odor of formalin is masked.⁴ Accidental complications can also occur due to use of other chemicals in dental office such as hydrogen peroxide and sodium hypochlorite as these solutions are routinely used as an irrigating solutions loaded in the same syringe as that of local anaesthesia for endodontic procedures. In case of such complications it is recommended that the assistant should be careful and not to panic at that time rather to handle the situation with utmost care. This case was treated in the same department using conservative approach. A case reported by Saujanya KP et al also preferred a conservative approach in handling such case.⁵ Another method for management can be

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tients so it is important for the clinician to take precautionary measures by proper labeling of the local anesthesia bottles if used for some other purpose. The operator as well as the assistant should have a thorough knowledge of the contents of the solution before it is injected. Assistants who are unskilled and do not have knowledge of dental medicaments should not be entertained. The chemicals which are not to be used during the treatment should be placed away from the working area. The consent form should be obtained from the patients before starting any dental treatment to avoid other legal complications.

REFERENCES


CONCLUSION

As the complications are unavoidable while treating patients...