

Dental Office Emergencies in Japan

Tatsuya Ichinohe, D.D.S., Ph.D., IJBDA

Department of Dental Anesthesiology, Tokyo Dental College

Systemic complications may occur before, during and after dental procedures. Most of them are not life-threatening and the patients will soon recover. These include fainting, hyperventilation syndrome and transient blood pressure decrease or elevation. However, in some cases, complications may be critical or even fatal. Although its possibility is rare, allergic reaction to analgesics or antibiotics, myocardial infarction or cerebral hemorrhage does happen. In Japan, it is estimated that dental treatments lead to less than 10 (but not 0) deaths of dental outpatients every year.

Japanese Dental Society of Anesthesiology (JDSA) has continued a questionnaire survey about systemic complications associated with dental treatments to all dental association offices including branch offices (n = 781). In the survey for 16 years (1980–1995), 2,785 complications were reported. About 90% of the complications were not critical and almost half of those occurred at local anesthesia. These complications were mainly fainting and hyperventilation syndrome. Severe complications included myocardial infarction, cerebrovascular accident, drug allergy, airway obstruction and local anesthetic intoxicity. Of those, 38 deaths mainly due to acute heart failure and cerebral or subarachnoid hemorrhage were reported. Emergency treatment performed by dentists consisted of oxygen therapy and administrations of rescue medicines such as vasopressor, vasodilator or adrenocorticosteroids in most cases. In some situations, however, cardiopulmonary resuscitation was applied.

Japanese dentists are legally able to give general anesthesia and intravenous sedation as well as local anesthesia and inhalation sedation to dental and oral surgical patients. To treat these patients, systemic management with monitoring is fundamental. Undergraduate students learn basic knowledge and techniques on these issues through lectures and practices of dental anesthesiology.

In this lecture, I will introduce three issues; (1) Dental office emergencies investigated by JDSA, (2) Emergencies of the outpatients in our dental hospital, (3) Education on emergency treatment in Japanese dental schools. With some samples of emergency case, I will discuss present condition of Japanese dentistry from the standpoint of emergency care by dentists.