An unusual complication in dental practice

Ana Pejic, Draginja Kojovic, Dimitrije Mirkovic

ABSTRACT

This paper reports an unusual complication of accidental swallowing of a hypodermic needle by a patient during a periodontal procedure, which though safely discharged in the stool after 24 hours.

Key words: Complication, Accidental Swallowing; Needle; Periodontal therapy

Introduction

Accidental swallowing of foreign objects is not uncommon and may require emergency medical assistance. Foreign bodies generally pass spontaneously through the gastrointestinal tract (GI tract) and do not result in any complications, but very sharp or pointed objects may cause perforations along the gastrointestinal tract. In addition, retained foreign bodies may cause gastrointestinal erosions and abrasions, which result in bleeding. The rate of complication from foreign body ingestion is estimated less than 1%. Complications due to foreign bodies in the stomach and small intestine typically involve perforation associated with peritonitis. Foreign bodies account for 15% to 35% of all bowel perforations. The usual complications that occur during dental practice include hemorrhage, mechanical or chemical damages induced by instruments, pads and drugs used in dentistry interventions etc. This paper reports an unusual complication of accidental swallowing of a hypodermic needle by a patient during a periodontal procedure, which though safely discharged in the stool after 24 hours.

Case report

A 27 year old female patient was reported to Department of Periodontology and Oral Medicine, Clinic of Dentistry, Faculty of Medicine in Nis, with a chief complaint of gum disease. The patient had a mild form of periodontitis with periodontal pockets whose depth was not more than 4 mm. The treatment plan includes oral prophylaxis and subgingival curettege and root planing. Dental treatment includes identification and removal of dental plaque, and removal of supra- and subgingival dental plaque, treated the root surface, (scaling i root planing), and finally did the curettage of the pathologically changed tissue on the wall of periodontal pocket. During washing, the bend needle detached from the syringe and was accidentally swallowed by the patient. In the emergency department, the patient was immediately evaluated and no signs of respiratory obstruction (e.g. dyspnea or cyanosis) were observed. There was no gagging, pain in the neck and vital signs were normal. She was examined by the radiologist and X-rays of the upper part of the esophagus region showed the needle lying in the esophagus (Figure 1). An Radiologist explained that, considering that the needle was bent and sliding down the digestive tract, there was no danger that the sharp top of the needle could prick into the wall of the esophagus, or further into the guts. A normal peristaltic will push the needle on, and then it will rebound from the musculature wall, probably until the very end (Figure 1). The patient was kept under observation and instructions given to observe the stool for needle. No medication prescribed but was advised to take fibrous food. The needle was effectively discharged in the stool 24 hours later with no pain or discomfort during this period.

Discussion

Many complications can arise from the routine delivery of dental care. These complications include adverse drug reactions, allergic reactions to dental materials, physical injury from instrument slippage or breakage and swallowing or aspirating foreign objects. Any object routinely placed into or removed from the oral cavity during dental or surgical procedures can be aspirated or swallowed. These items can include teeth, restorations, restorative materials, instruments, implant parts, rubber dam clamps, gauze packs and impression materials. The possibility of swallowing or aspirating an object is increased by the common practice of placing the patient in a supine position for sit-down, four-handed dental treatment. It has been stated imperatively that the use of rubber dam is mandatory in all endodontic and conservative procedures to implement a sterile operating technique and to avoid the risk of losing small instruments down the trachea or esophagus. Many dental techniques preclude the use of the rub-

Figure 1. Radiography of swallowed needle
An unusual complication in dental practice

ber dam, particularly during routine oral surgery, periodontics and prosthodontic procedures. An alternative is to place a 4 x 4-inch gauze protective barrier in the oral cavity distal to the area where small items are being manipulated. It is important to remember that the gauze also can be aspirated and should be controlled by attaching floss or leaving a long trailing edge of the gauze. It is also advised to always use lock syringes especially when operating in the oral cavity so that detachment of the needle from the syringe during injection can be prevented.

Conclusion
In conclusion by using judicious airway protection techniques, practitioners can avoid the problems encountered by the patient and doctors in these case reports.

Authors Affiliations
1. Ana Pejcic DDM Ph.D., Department of Periodontology and Oral Medicine, Medical Faculty, University of Nis, Nis, Serbia,
2. Draginja Kojovic, Department of Periodontology and Oral Medicine, Medical Faculty, University of Nis, Nis, Serbia, 3. Dimitrije Mirkovic Private practice, Nis, Serbia.

References

How to cite this article

Address for Correspondence
Dr. Ana Pejcic DDM Ph.D,
Department of Periodontology and Oral Medicine,
Medical Faculty,
University of Nis,
Nis, Serbia,
Email: dranapejcic@hotmail.com

Source of Support: Nil
Conflict of Interest: None Declared