INHALATION OR INGESTION OF ORTHODONTIC OBJECTS

R Varho*, H Oksala,** A Svedström-Oristo*

* Institute of Dentistry, University of Turku, Department of Oral Development and Orthodontics, Finland
** Institute of Dentistry, University of Turku, Department of Community Dentistry, Finland

** Objectives: **

Although inhalation or ingestion of orthodontic appliances can lead to serious medical problems, the real incidence of these complications is more or less anecdotal.

** Materials and Methods: **

An electronic, semi-structured questionnaire was sent to all the members of the Orthodontic Section of Apollonia, the Finnish Dental Society, who had given their email addresses (n= 251). A total of 140 members (56%) responded (111 specialist orthodontists, 14 postgraduate students, 15 general practitioners).

** Results: **

20% of the respondents reported ingestion or inhalation of an orthodontic object by a patient as having occurred once, and 19% reported it as having occurred 2 to 10 times. The age of patients at time of ingestion is shown in Figure 1. The complication usually occurred out of office while eating or sleeping; only 19% happened during treatment in office. Ingested objects are shown in Figure 2. None of the cases had been life-threatening. The procedures following these complications were in order of their frequency: an observation period of 2 to 14 days (in 40% of cases), radiographic examination (26%), medical emergency (9%), and dietary instruction (7%). Surgical removal of the object was needed in 2 cases (4%). The majority of the respondents (69%) did not change their treatment manner, while 31% reported being more careful after the sequence. Only 2 respondents (4%) estimated the chance of ingestion or inhalation as strong, while the majority of the respondents regarded this risk as insignificant.

** Conclusions: **

Although the risk of inhalation or ingestion of orthodontic objects is small and the consequences rarely serious, it should be taken into consideration. A medical emergency protocol should be included in the informed consent form.