## Air-flow equipment를 사용한 치주치료 이후 발생한 종격동 기종과 피하기종 : 증례보고

이정헌, 김강혁, 김준규, 박재억, 김창현\*

가톨릭대학교 서울성모병원 구강악안면외과학교실

 $\langle Abstract \rangle$ 

## Pneumomediastinum and Subcutaneous Emphysema after Periodontal Treatment Using Air-Flow Equipment : A Case Report

Jung Hyeon Lee, Kang Hyuk Kim, Joon kyu Kim, Je Uk Park, Chang Hyen Kim\*

Department of Oral and Maxillofacial Surgery, Seoul St. Mary's Hospital The Catholic University of Korea, Seoul, Korea

Subcutaneous emphysema is a rare but serious side effect of dental and oral surgery procedures. The condition is characterized by air being forced underneath the tissue, leading to swelling, crepitus on palpation, and with potential to spread along the fascial planes to the periorbital, mediastinal, pericardial, and/or thoracic spaces. A wide range of causes have been documented for the origin of subcutaneous emphysema during dental treatment including: crown preparations, other operative procedures, endodontic therapy, extractions, as well as oral surgery procedures.

The patient was a 58-year-old woman who presented to the Seoul Saint mary's hospital emergency department with a chief complaint of facial edema, dyspnea and chest discomfort after periodontal treatment using an air-flow equipment in local dental clinic. During treatment in the emergency department, oxygen therapy and intravenous injection of steroid and anti-histamine was done, it was noted that the patient had pain and swelling on left lower molar region, pus discharging on same site. Severe edema was observed on periorbital region to neck with heatness. An audible crepitus sound was heard during palpation on facial area. Neck CT scan and antibiotic therapy was done, as symptom suggesting dental abscess is observed. 3 hours after injection of antibiotics, the patient's symptom was relieved, but she felt chest discomfort continuously. CT scan with constrast depicted confluent and extensive soft tissue emphysematous changes involving face and deep neck spaces and pneumomediastinum. The patient was refered to thoracic surgery department, oxygen therapy was decided continuously. After 10 hours, patient's chief complaint was resolved, and discharged. After 1 week, all symptom was disappear and follow-up neck CT scan finding was disappearance of edema and pneumomediastinum.

We report a case of cervical subcutaneous emphysema and pneumomediastinum occurring after periodontal treatment using an air-flow equipment and case on the diagnosis and treatment of subcutaneous emphysema and pneumomediastinum, along with a review of the literature.

Key words: Pneumomediastinum, Subcutaneous emphysema, Air-flow equipment

\* Correspondence: Chang Hyen Kim Department of Oral and Maxillofacial Surgery, Seoul St. Mary's Hospital Banpo-daero, Seocho-gu, Seoul 137-701, Korea. Tel: +82-2-2258-1781, Fax: +82-2-537-2374 E-mail: omfskim1@catholic.ac.kr

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## I. INTRODUCTION

Subcutaneous emphysema in the face and neck is a well-known clinical entity associated with trauma to the