S50. Dental Technicians’ Pneumoconiosis: A Case Report

Meside Gündüzöz (1), Nejdiye Mazıcan (2), Canan Demir (3), Servet Birgin İritaş (4) Türkan Nadir Öziş(5), Vugar Ali Türksoy (6), Lütfiye Tutkun, (7) Ömer Hınç Yılmaz(8)

(1) Ankara Occupational Diseases Hospital, Department of Family Medicine, Ankara, Turkey
(2) Ege University School of Medicine, Department of Public Health, Division of Work Health and Occupational Medicine, İzmir, Turkey
(3) Ege University School of Medicine, Department of Public Health, Division of Work Health and Occupational Medicine, İzmir, Turkey
(4) Council of Forensic Medicine, Ankara, Turkey
(5) Ankara Occupational Diseases Hospital, Department of Pulmonary Disease, Ankara, Turkey
(6) Bozok University, Department of Public Health, Yozgat, Turkey
(7) Bozok University, Department of Medical Biochemistry, Yozgat, Turkey
(8) Yıldırım Beyazıt University Faculty of Medicine, Department of Public Health, Ankara, Turkey

Introduction: Dental technicians’ pneumoconiosis is a result of direct exposure to dental alloy, acrylic resin, quartz, carbon, silica, and hard metal dust that are abundant in the air respired by dental technicians. We presented a case of dental technicians’ pneumoconiosis with clinical and radiologic findings.

Case: A 33 year-old man admitted to our occupational medicine outpatient clinic with dyspnea. He had worked in a private dental laboratory as a dental technician for 18 years. He had a smoking history of one packet per day for 10 years. He had no history of tuberculosis or any other systemic or local diseases. Pulmonary function testing presented the following values; FVC:70 %, FEV1:74 %, FEV1/FVC:90 %. Chest X-ray revealed an increase in reticular density and millimetric nodules in both lungs. International Labor Office (ILO) profusion score was q/q 3/3 A, ax. High Resolution Computerized Tomography (HRCT) demonstrated a diffuse micronodular pattern in both lungs that holds all zones. There were also irregular fibrotic opacities due to conglomeration in right apical region and honeycombing pattern next to pleural surfaces.

Conclusion: Dental technicians are exposed to various dusts and chemicals during processing of dental prosthesis. They should be informed on the potential hazards in their occupational area and they should get the proper information on personal protective equipment and on all the other preventive strategies. It is necessary to ensure the proper working conditions for all dental technicians.

Key Words: Dental Technicians’ Pneumoconiosis, Quartz Exposure, Mixt Dust Exposure