

## **Respiratory Symptoms and Pulmonary Function Test among Salon Employees**

Ahmed A. Aljohaney, MBBS, FRCPC\* Shahad M. Daali, MBBS\*\* Hanouf A. Al-juaid, MBBS\*\*\* Maysaa T. Ageel, MBBS\*\*\*\* Samaher A. Sukker, MBBS\*\*\*\*\* Faris F. Alhejaili, MBBS, FRCPC\*\*\*\*\*

**Objective:** To evaluate the association between chemical exposure in salons and respiratory symptom development and evaluate pulmonary function tests (PFTs).

**Design:** A Cross-Sectional Prospective Study.

**Setting:** King Abdulaziz University Hospital, Jeddah, Saudi Arabia

**Method:** One hundred sixty employees from 35 randomly selected salons in Jeddah from July 2017 to September 2017 were included in the study. The study consisted of two parts answering a self-administrated questionnaire and measuring PFTs.

**Result:** One hundred sixty salon employees were included in the study, 91 (57%) reported different respiratory symptoms. Forty-four employees (28%) reported at least one respiratory symptom. However, cough, sputum, wheezing and shortness of breath were reported by only eight (5%) employees. Shortness of breath was the most common symptom reported by 71 (44%) followed by wheezing in 40 (25%). Four main risk factors were identified: (1) having a history of respiratory disease (odds ratio [OR] 6.51); (2) working with make-up (OR 4.3); (3) smoking (OR 3.61); (4) exposure to chemicals at work (OR 2.17).

**Conclusion:** More than half of salon employees reported respiratory symptoms in workplace. However, no significant impairment in PFTs was found. Improving the working environment and using protective devices will minimize exposure-related respiratory symptoms. Worker safety agencies and policymakers must ensure the suitability of the work environment and enforce the use of protective devices for all employees.