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Title: Respiratory complaints and functions in barn workers

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Body: **AIM:** This study aimed to investigate the respiratory complaints and functional impairments in workers included in family plants with few cattle. **MATERIALS-METHODS:** One hundred fifty workers (128 female) accepted were included between October, 2011 and January, 2012. Occupational and Environmental Lung Diseases Questionnaire of Turkish Thoracic Society, pulmonary function tests, physical examinations and eosinophil counts in nasal drainage were performed on all subjects. **RESULTS:** The mean age was 47.7±14.2 years. Smoking rate was 12% (18/150). The declaration rate for both feeding cattle and gardening was 90.7% (136/150). Almost half of the subjects (73/150) noted that they were exposed to dust and fumes in barns. More than 80% of the subjects used wood, coal, hazelnut shell and gas for heating and cooking. was present in of subjects. Cough, phlegm, wheezing, chest tightness and dyspnea were 24%, 13.3%, 6%, 6% and 27.3%, respectively. The mean percentages of predicted FVC, FEV1, FEV1/FVC and maximal midexpiratory rate were 78.2±24.1, 74.5±24.4, 80.7±12.8 and 60.9±26.6, respectively. There were significant negative correlations between the duration of working in barns and FVC (r=-0.281, p=0.001), FEV1 (r=-0.217, p=0.008), MMFR (r=-0.168, p=0.040). Nasal eosinophils were detected in 47.3% (71/150). Heating houses had an independent effect on cough (F=3.156, p=0.048) and working years in barn had an independent effect on phlegm (F=2.034, p=0.003). Multivariate analysis did not reveal any effect. **CONCLUSION:** Increased impairments in pulmonary functions by years were detected. It is necessary to improve both working place and house ventilation and to prevent the workers respiratory system.