

Chronic obstructive pulmonary disease among women using biomass fuels in some rural areas of Fayoum governorate

Chronic obstructive pulmonary disease (COPD) is an important health problem; it represents an important health challenge in terms of both prevention and treatment. Although smoking is recognized as the most important risk factor for COPD, rural women in developing countries have a greater risk not as a result of smoking, as smoking is uncommon there, but due to smoke from domestic biomass fuel combustion, which is another potential risk factor. **Aims** The aim of this study was to investigate exposure to biomass fuel as a potential risk factor for COPD among women in the rural areas of Fayoum governorate in whom cigarette smoking was not the risk factor. **Materials and methods** This study included 100 nonsmoker women who used biomass fuels and 100 women who had not used biomass throughout their life who served as controls. All groups in the study were subjected to questionnaire on respiratory symptoms, clinical examination, and were investigated using spirometer. **Results** Biomass fuel is an important risk factor for development of COPD among rural nonsmoker women who use biomass. The decline in forced expiratory volume in first second and forced expiratory flow 25–75% is significantly related to the duration of exposure to biomass fuels **Conclusion** It was detected that biomass fuel is an important risk factor for development of COPD. Biomass fuels affect pulmonary functions and this is strongly related to the duration of biomass use.