



ASTHMA CONTROL AND SLEEP QUALITY AMONGST ASTHMATIC ADULTS: RESULTS FROM COLOMBO, SRI LANKA

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Abstract

Global asthma network recognises Sri Lanka as a country with high prevalence of asthma. Most asthma patients commonly have episodes of worsening nocturnal asthma symptoms causing sleep disturbances. However, sleep quality among asthmatic adults in Sri Lanka is unknown. Therefore, the study was conducted to determine asthma control, sleep quality and its association amongst asthmatic adults attending respiratory clinics in selected hospitals in Colombo District, Sri Lanka. A descriptive cross-sectional study was conducted on 180 patients diagnosed with asthma. An interviewer administered questionnaire used to determine base line data. Asthma control was assessed using Asthma Control Test and lung function was measured using a spirometer (nidd Dynamic Inc., Switzerland) and a calibrated peak flow meter. Sleep quality was determined using the Pittsburg Sleeping Quality Index (PSQI). PSQI determines subjective sleep quality, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleep promoting medications and daytime dysfunction by a questionnaire. In this study 60% were females. Only 33.3% had controlled asthma, 37.8% had partially controlled asthma and 28.9% had uncontrolled asthma. Asthma control was better amongst males (17.8%) than females (15.6%). Over 64.4% had deficient sleep according to the PSQI. Sleep disturbances due to asthma was greater in females ($p=0.019$). There was no significant difference between PSQI scores and lung function test parameters (FEV_1 , FVC, FEV_1/FVC and PEF). None of the patients with good asthma control (33.33%) complained of sleep disturbances. The study revealed that there was a strong negative correlation between PSQI scores and Asthma Control Test scores ($p<0.001$). Patients should be made aware of worsening of asthma during sleep. Asthma patients should be taught the use of rescue medications to prevent exacerbations. Quality of sleep is poorly addressed in most asthma clinics and need to be prioritised to achieve better asthma control.

Keywords: Asthma, Sleep, Asthma control, Adults, Sleep quality