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**Title:** Sleep disordered breathing and sleep quality of children with bronchiolitis obliterans

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**Body:** Bronchiolitis obliterans (BO) is characterized by persistent symptoms of obstructive lung disease following acute bronchial injury. There are few data on long-term follow-up, frequency of sleep disordered breathing and sleep quality of BO patients. Our aim was to evaluate clinical findings, frequency of sleep disordered breathing and sleep quality of BO patients. Fifty-two postinfectious BO patients (73% male) (mean age: 86±65 months) followed for 35±31 months in three different centres were enrolled. Mean age at diagnosis was 35±31 months. 42% of the patients had a history of hospitalization in an intensive care unit, 11.5% had immunodeficiency, 36.5% had gastroesophageal reflux, 3.8% had pulmonary hypertension. Mean FEV1 was 52.8%±13.2, FVC was 61.7±11.1% in 24 patients who could perform pulmonary function test (PFT). 96% of patients were receiving inhaled/nebulised steroid, 75% short-acting bronchodilators, 17.3% long-acting bronchodilators, 7.7% systemic steroids, 9.6% long-term macrolide treatment. Three patients with hypoxia were on home oxygen therapy, two patients with hypercapnic respiratory failure were using noninvasive mechanical ventilation. According to Pediatric Sleep Questionnaire; 32.7% of patients had sleep disordered breathing (Mean score: 0,26±0,16). Pittsburgh Sleep Quality Index (PSQI) was performed in 31 patients who were older than 4 years (Mean PSQI global score: 4,2±3,6). According to PSQI, 42% of patients had poor sleep quality. There were no significant relationship between sleep quality and symptoms and PFT results (p>0.05). Sleep disordered breathing and poor sleep quality are common in BO patients.