|  |
| --- |
| **Sleep Health in Interstitial Lung Disease: A Systematic Review and Meta-analysis** |
| Latief HM1,2,3, Witjaksono LE1, Howard ME2,4,5, Joosten SA6, Landry SA6, Edwards BA6, Khor YH3,4,5,7 |
| *1Medicine, University of Indonesia, Depok, Indonesia*  *2Nursing and Health Sciences, Monash University, Victoria, Australia*  *3Respiratory Research@Alfred, Monash University, Victoria, Australia*  *4Department of Respiratory and Sleep Medicine, Austin Health, Victoria, Australia*  *5Institute of Breathing and Sleep, Victoria, Australia*  *6Department of Physiology, Biomedicine Discovery Institute, Monash University, Victoria, Australia*  *7Department of Medicine, University of Melbourne, Victoria, Australia* |
| **Introduction/Aim:** Patients with interstitial lung disease (ILD) are at risk of developing sleep disturbances due to lung restriction and impaired gas exchange during sleep. The burden and association of sleep disturbances in ILD are poorly understood. This systematic review synthesized current literature on the prevalence, associated factors, and prognostic significance of sleep disturbances in ILD.  **Methods:** Ovid MEDLINE, EMBASE, and CENTRAL databases were searched for eligible studies up to March 2023. The primary outcome was the prevalence of different types of sleep disturbance in patients with ILD, with associated factors and prognostic significance being secondary outcomes. Meta-analyses with subgroup analyses were conducted where possible.  **Results:** Forty-nine studies were included (total participant number = 4424). The most commonly studied ILD subtype was idiopathic pulmonary fibrosis (n = 23). The most common type of sleep disturbance in ILD was obstructive sleep apnoea (OSA), with a pooled prevalence of 70% irrespective of its severity, and 40% of patients exhibiting moderate-to-severe OSA. Few studies evaluated poor sleep using sleep-related questionnaires and restless leg syndrome, with prevalences ranging between 10.3-66.3% and 27-76%, respectively. Out of the 96 variables evaluated for associations with sleep disturbance in patients with ILD, only few were found to have consistent relationships, including positive associations with poor health-related quality of life, male gender, and coronary artery disease. The impact on survival was only evaluated in one study of OSA in patients with mixed ILD subtypes, with no significant relationship identified.  **Conclusion:** Sleep disturbances are common in patients with ILD, although there is a lack of known consistent associated factors. The prognostic implications of sleep disturbance in this population remain unknown, as most studies were cross-sectional in design. Further work is needed to assess impact of sleep disturbances in patients with ILD longitudinally, with subsequent evaluation of therapeutic effects.  **Grant Support:** Nil. |