# Restless Leg Syndrome in Lung Chemical Warfare Patients

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**Abstract:**

Objectives*:* Restless Legs Syndrome (RLS) has been associated with a variety of disease, including chronic obstructive pulmonary disease (COPD) which can be worsen the symptoms of underlying disease and correlated with co-morbidities. We aimed to investigate the frequency of RLS and its association to respiratory complications in Sulphur Mustard (SM) gas exposed veterans and COPD patients.

Method*s:* This cross-sectional study recruited SM lung injury veterans, their healthy family members and COPD patients from August 2018 to August 2019. COPD was confirmed by medical history, physical examination and spirometry according to GOLD COPD guidelines. RLS diagnosis was recognized by International RLS study Group (IRLSSG) and severity was assessed using IRLS rating scale. Other research measures were COPD assessment test (CAT), dyspnoea severity (Modified Medical Research Council, MMRC scale), daytime somnolence (Epworth sleepiness Scale, ESS), Laboratory values included haemoglobin, ferritin, creatinine, and fibrinogen.

Results*:* This study conducted on 143 men in three groups: 40 (30.0%) SM exposed veterans, 73 (55.3%) COPD patients and 30 healthy cases. Twenty (50%) of veterans group had RLS while 25 (32.9%) cases of COPD were affected by this disorder. One normal case (3.33%) suffered from RLS. The chemical veterans suffered from cough, sputum production, chest pain and haemoptysis had a higher incidence proportion to COPD patients (P<0.001). The CAT score was significantly higher in SM exposed veterans with RLS (P =0.004).

**Conclusion***:* RLS is more common in SM lung veterans with higher CAT scores, so evaluation and treatment of RLS recommended in lung mustard victims.

**Keywords**: Lung, Chemical, warfare, COPD, Restless leg syndrome