Relationship between Poorer Sleep Quality with IL-β Cytokine in Chemical Victims: Sardasht-Iran Cohort Study

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Background: Sleep problems in chemical victims are frequently overlooked despite negative impact on patients' perceived health-related quality of life. Sleep deprivation induces significant elevation of serum IL-1β in healthy people. Furthermore, IL-1β and TNF-α are considered as sleep regulatory cytokines. The aim of this study was to evaluate the relationship between poorer sleep disorder with IL-β cytokine in sulfur mustard exposed people. Materials and Methods: In a historical cohort study, Sardasht-Iran Cohort Study (SICS), 372 SM exposed participants were studied 20 years after exposure. The Pittsburgh sleep quality index (PSQI) was used to obtain a self-reported measure of sleep quality. Cytokine was assessed by ELISA quantitative kit.

Results: Based on the result of this study, there is a significant relationship between IL-β cytokine with sleep quality (P= 0.01). Conclusion: Further insight into the functional role of cytokines on the sleep disorder of SM exposed individuals may result in the identification of novel therapeutic perspectives.

Keywords: Cytokines, Sulfur Mustard, IL-β, sleep disorder