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• **Relationship between Sleep Disorders with TH1/TH2 Cytokines 20 Years after Sulfur Mustard Exposure: Sardasht-Iran Cohort Study**

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Background: Recently, there has been demonstrated a relationship between sleep and cytokines and a great effort has been done to understand the importance of cytokines in the regulation of mechanisms that control sleep. This study aimed to assess the relationship between sleep disorder with IFN- γ and IL-4 cytokines in sulfur mustard (SM) exposed people 20 years after SM exposure. **Materials and Methods:** In a historical cohort study, Sardasht-Iran Cohort Study (SICS), 372 SM exposed participants were studied. The Pittsburgh sleep quality index (PSQI) was used to obtain a self-reported measure of sleep disorders. Cytokine was assessed by Elisa quantitative kits. **Results:**

There were significant relationships between sleep Disorders with TH1 and TH2 cytokines (P=0.040, P= 0.024 respectively). **Conclusion:** Since there has been previously reported a shift in the Th1/Th2 cytokine balance towards increased TH1 by sleep, the correlation of TH1 and TH2 with sleep disorders in SM exposed people indicates different response in this population.

Keywords: sleep disorder, TH1/TH2, cytokines, sulfur mustard