

Physical activity of the civilian chemical victims of Sardasht 20 years after sulfur mustard exposure

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Abstract:

Sulfur mustard was employed as a chemical warfare agent by the Iraqi forces in the borderline regions of Iran during the Iraq-Iran war (1980-1988). The short- and long-term biological effects of sulfur mustard agent have been studied in both basic and clinical aspects. One organ that was primarily affected was the respiratory system. Among the adults, regular physical activity positively affects the respiratory system as well as the individual's ability to perform important daily tasks. We investigated the self-reported physical activity in chemical victims 20 years after sulfur mustard exposure, compared the data with those of the matched counterparts, and explored any potential association with BMI. The exposed group was 357 and the control group was 125 individuals. Physical activity was measured using the global physical activity questionnaire (GPAQ) that evaluates work, recreational, transport and sitting activities. A significant difference was found between the control and exposed groups in terms of total physical activity MET (metabolic equivalent), total physical activity min/week and total transport-related physical activity min/week in BMI >30 kg/m². In addition, total work-related physical activity showed a significant difference between the control and exposed groups with BMI <25 kg/m². The results show that a significant correlation was present between the increase of body weight and the reduction of total physical activity and MET in exposed group 20 years after sulfur mustard exposure. © 2009 Informa UK Ltd.

Keywords:

BMI; Physical activity; Sardasht-Iran Cohort Study; Sulfur mustard

Subjects:

Wound

SLID: SL650

Document Type: Journal Article

Publish Date: 2009

Source Title: Toxin Reviews

Volume: 28

Issue: 1

Pages: 48 - 53

Source Link:

DOI:

<http://dx.doi.org/10.1080/15569540802691960>