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• **Study of Apoptosis of Peripheral Blood Mononuclear Cells of Chemical Victims 25 Years after Sulfur Mustard Exposure**

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Background: Sulfur mustard (SM) is one of the most important chemical warfare agents that used in World War I and the Iran–Iraq War. SM causes the short and long term complications on different organs especially lung, eyes and skin. It is reported to inducing DNA damaged, disturbance of cell metabolism and causing apoptosis and necrosis. Although the short term effects of sulfur mustard was more studied, the mechanisms of its long term toxicity is unclear up to now. The aim of this article is the study of the apoptosis of peripheral blood mononuclear cells (PBMC) of chemical victims 25 years after SM exposure in compared to the control group. **Materials and Methods:** Blood samples were obtained from 15 male sulfur mustard exposed patients and 15 age and sex matched healthy individuals. The PBMCs were cultured and lysed with lysis buffer and the apoptosis was measured by cell death detection ELISA kit. **Results and Conclusion:** Results will be presented in the congress.

Keywords: Apoptosis, Peripheral Blood Mononuclear Cells, Chemical Victims, Sulfur Mustard