Malignant cutaneous T-cell lymphoma among 1100 Iranian chemical victims, 2 decades after exposure to sulfur mustard: A long term investigation

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Abstract

Sulfur Mustard is a potent chemical warfare agent that was widely used during First World War and Iran–Iraq conflict. This vesicant agent has a lot of acute and chronic destructive influences on the skin, eye and respiratory system. SM via the alkilation of DNA and several cellular proteins (structural, cytoplasmic and enzymes) and cell nuclei; produce several toxic, mutagenic and carcinogenic effects.

Methods: In this historical Cohort, a population of 1100 veterans with documented history of exposure to Sulfur Mustard during the period of 1982-88 (all have been under the close health monitoring program) were examined.

Results: 1) The mean age of the patients was $43.3 \pm 9.8$ years
2) 12 cases amongst 1100 are found to have developed mycosis fungoides( CTCL) over the past years which was much higher than our expectation, while in general population prevalence of CTCL is $1.28/100,000/year$ for patient 70 to 79 years old. 3)The most common sites of lesions were folds, flexural and thin epidermis areas. (The same places that were most affected by SM-induced bulla during war time between 1982-1988). 4) Most of the patients had a past history of xerosis, chronic dermatitis and itching that begun shortly after exposure to SM 5- Most patients with CTCL presented with pigmentory and vascular changes (like SM scar).

Finally, chemical weapons are very harmful to life hence blocking of production, prevention of use and immediate treatment and long term follow up of victims are the most important measures to be taken by all scientists.

Biography

Seyed Naser Emadi has completed his post graduate training of dermatology in Tehran University of medical sciences, Iran (2000-2004). His Professional Experience is to manage skin diseases amongst black people especially those who infected with HIV, AIDS and Cutaneous Leishmaniasis. He is a member of medicines without frontier since 2005 to now and has been worked in Kenya, Ghana, Zimbabwe as a volunteer to serve needy people particularly HIV patients. He has published more than 15 papers in reputed journals (Arch Dermatol, CED, International Journal of Dermatology, DOJ). Now he is working on the case of Kaposi Sarcoma among HIV patients that referred to Mbagati District Hospital in Nairobi –Kenya.