

Delayed head and neck complications of sulphur mustard poisoning in Iranian veterans

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Abstract

Objective: Sulphur mustard is a chemical warfare agent which was used against Iranian combatants and civilians between 1982 and 1988. The purpose of this study was to document the delayed toxic effects of sulphur mustard in Iranian veterans, focussing on head and neck complications. **Patients and methods:** This was a two-year, prospective, descriptive study of 43 male Iranian veterans aged 22 to 48 years (mean 31.8 years) who were moderately disabled or worse due to sulphur mustard poisoning. Investigations were performed with consent, including haematological, biochemical and immunological tests, spirometry, chest X-ray, high resolution computed tomography of the lungs, and skin biopsies. Further investigations and interventions were performed as clinically indicated. **Results:** The most affected sites were the lungs (90 per cent), peripheral nerves (77 per cent), skin (72 per cent), eyes (64 per cent), and head and neck (62 per cent). Of seven patients with mostly head and neck complications, four had a skin disorder (hyperpigmentation in all four, an erythematous, papular rash in two, and dry skin in one). Two patients had thyroid cancer (undifferentiated thyroid carcinoma in one and papillary carcinoma of a thyroglossal cyst in the other, 12 and 14 years after sulphur mustard exposure, respectively). One patient had nasopharyngeal carcinoma, 12 years after sulphur mustard exposure. **Conclusion:** Carcinomas of the thyroid and nasopharynx in three patients with sulphur mustard exposure are reported for the first time. © 2009 Copyright JLO (1984) Limited.

Author keywords

Cancer; Chemical Warfare Agent; Head And Neck; Sulphur Mustard; Thyroglossal Cyst

Indexed Keywords

EMTREE drug terms: mustard gas

EMTREE medical terms: adult; article; biochemistry; blood analysis; chemical warfare; clinical article; disability; dry skin; erythema; exposure; eye; gas poisoning; head and neck disease; high resolution computer tomography; human; hyperpigmentation; immunological procedures; immunology; lung; male; nasopharynx; nasopharynx carcinoma; papillary carcinoma; papular rash; prospective study; skin; skin biopsy; skin disease; spirometry; thorax radiography; thyroglossal duct cyst; thyroid cancer; thyroid carcinoma; thyroid gland

MeSH: Adult; Carcinoma; Chemical Warfare Agents; Head and Neck Neoplasms; Humans; Inhalation Exposure; Iran; Male; Middle Aged; Mustard Gas; Prospective Studies; Skin Diseases; Time Factors; Veterans

Medline is the source for the MeSH terms of this document.

Chemicals and CAS Registry Numbers: mustard gas, 505-60-2; Chemical Warfare Agents; Mustard Gas, 505-60-2

ISSN: 00222101 **CODEN:** JLOTAS **Source Type:** Journal **Original language:** English

DOI: 10.1017/S0022210109990260 **PubMed ID:** 19073200 **Document Type:** Article