

Esclerose Sistêmica – Esclerodermia. Fatores de Risco Ambientais

04/05/10

Systemic sclerosis: environmental factors.

Mora GF. J Rheumatol. 2009 Nov;36(11):2383-96.

Departamento de Docencia e Investigación - HMC Cir My Dr Cosme Argeric, and Facultad de Medicina, Universidad de Buenos Aires, UDH J, Buenos Aires, Argentina.

Epidemiological evidence for the association between environmental and occupational risk factors and systemic sclerosis (SSc) has been extensively analyzed. Such exposures are frequently of long duration, and the inadequate classification of the type of exposure and other confounding variables may bias their estimated association with SSc. Environmental factors could be classified as occupational (silica, organic solvents), infectious (bacterial, viral), and non-occupational/non-infectious (drugs, pesticides, silicones). Understanding the link between environmental risk factors and the development of SSc is limited, due to the phenotypic and pathogenic heterogeneity of patients and disease, respectively, and also due to poor ability to assess environmental exposures quantitatively and the role of the gene-environment interactions in this disease. Global collaboration could increase the chance for a better use of the data obtained from a limited number of cases and also limited resources. Normalization and validation of biomarkers and questionnaires could also be very useful to reliably quantify environmental exposures.

PMID: 19797508

Systemic sclerosis: environmental and occupational risk factors.

Nietert PJ, Silver RM. Curr Opin Rheumatol. 2000 Nov;12(6):520-6.

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There is growing concern about the association between systemic sclerosis and certain environmental and occupational risk factors, including exposures to vinyl chloride, adulterated cooking oils, L-tryptophan, silica, silicone breast implants, organic solvents, and other agents such as epoxy resins, pesticides, and hand/arm vibration. This article highlights the current medical research that has examined these associations in scleroderma-like disorders and in systemic sclerosis.

PMID: 11092202

Systemic sclerosis: environmental factors.

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PMID: 19797508

Systemic sclerosis: epidemiology and environmental factors

Magnant J, Diot E. Presse Med. 2006 Dec;35(12 Pt 2):1894-901.

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The pathophysiology of systemic sclerosis (SSc), probably multifactorial, is not yet well elucidated. Among the many endogenous and exogenous factors probably involved, environmental and occupational elements may play an essential role. SSc is a rare disease. Prevalence is estimated between 3 and 24 per 100,000 population. Reports of sporadic clusters of higher prevalence suggest environmental factors, which have not yet been defined. Silica, first suggested in 1917, plays a role in SSc development, as officially recognized in France for purposes of workers' compensation. Solvents have been associated with SSc by several rigorous case-control studies that suggest a causal role. Current data about other toxic agents (epoxy resins, vibrations, welding fumes) do not justify conclusions about their role in SSc. The severity of SSc (determined by the extent of diffuse cutaneous lesions, pulmonary involvement, and immunological profile) is probably associated with occupational exposure.

PMID: 17159715

Occupational scleroderma.

Steen VD. Curr Opin Rheumatol. 1999 Nov;11(6):490-4.

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Various occupations and environmental exposures have been suggested to possibly cause or precipitate systemic sclerosis. This article reviews studies of vinyl chloride, silica dust, and chemicals, including trichloroethene and epoxy resins, that may play a role in triggering

the disease. Although we would like to believe that this disease is caused by an external source, the lack of similarity of exposures, the low frequency of the disease in comparison to the exposure rate, and the lack of a convincing association with any substance make it impossible to identify a specific trigger.

PMID: 10551673

Scleroderma and occupational risk factors: a case-control study

Bovenzi M, Barbone F, Pisa FE, Della Vedova A, Betta A, Romeo L, Tonello A, Biasi D, Caramaschi P. G Ital Med Lav Ergon. 2003 Jul-Sep;25 Suppl(3):46-7.

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In a hospital-based case-referent study of systemic sclerosis (SSc) and occupational risk factors (55 cases and 171 referents), an excess risk for SSc was observed in men with previous occupational exposure to solvents and certain chemicals (vinyl chloride, formaldehyde). SSc was associated, even though not significantly, with occupational exposure to solvents and silica among women. The possible role of occupational exposures in the etiology of SSc, as well as the methodological limitations of the present study, are discussed.

PMID: 14979077

Scleroderma and occupational exposure.

Bovenzi M, Barbone F, Betta A, Tommasini M, Versini W.
1995 Aug;21(4):289-92.

Scand J Work Environ Health.

Institute of Occupational Health, University of Trieste, Italy.

OBJECTIVES: A case-referent study was conducted in the province of Trento, Italy, to investigate the possible association between occupational exposure and scleroderma (systemic and localized variants). METHODS: Twenty-one cases of scleroderma were ascertained from the computerized admission files of all of the local hospitals from 1976 to 1991. For each case, two age- and gender-matched referents were selected that were discharged from the hospital on the same day as the case. The subjects were interviewed with a structured questionnaire which included items for personal, work, and medical history. Exposure to organic solvents, other selected chemicals, silica dust, and hand-arm vibration was carefully investigated. RESULTS: A significant association was found between exposure to organic solvents (aromatic hydrocarbons) and scleroderma [odds ratio (OR) 9.28, 95% confidence interval (95% CI) 1.08-243.8]. For the men, the OR for exposure to silica was 5.20 (95% CI 0.48-74.1), whereas for the women it was 2.11 (95% CI 0.20-22.0) for exposure to other selected chemicals. CONCLUSIONS: The results of this case-referent study are consistent with those of previous case reports on the important role of occupation in the etiology of scleroderma. In particular, our findings confirm that exposure to organic solvents and silica is associated with this rare connective tissue disease.

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