



Chromate dermatitis

To elucidate Further the natural history and prognosis of occupational chromate dermatitis, 120 affected patients, diagnosed between 1980 and 1989, were reviewed. The incidence of chromate dermatitis in Western Australia appeared to remain unchanged over the decade, 65% of patients were construction workers with cement-induced chromate dermatitis, Workers at greatest risk of sensitization were those mixing bagged cement at the work site. The median age at onset of symptoms was 34 years, with 48% having been exposed to chromate for 5 years or less. Only 37% presented to the dermatologist within 12 months of developing symptoms 76% of patients had ongoing dermatitis at the time of review. Although 48% of the study population had completely changed their occupation to avoid chromate exposure, symptoms persisted in 69%. A delayed diagnosis of chromate sensitivity was noted to be a predictor of chronicity. In view of the potential chronicity of chromate dermatitis and its associated social and occupational impairment, we recommend the addition of ferrous sulphate-while mixing bagged cement at the work site. This simple technique targets the workers at greatest risk of becoming sensitized.

Abstract

A series of 230 patients with skin disease and 66 men with no skin disease were tested with a battery of nine common sensitizing substances. Among the patients the incidence of positive reactions was 36% whereas in the control series it was 7.6%. The most common sensitizing agent was potassium dichromate. The incidence of chromate sensitivity was four times greater among assemblers than among men in other jobs. Hexavalent chromate was found on the surface of the nuts, bolts, screws, and washers used by the assemblers. The source of the chromate was a chromate dip which is used as a passivator in chromium plating and zinc coating. The process was modified in one department and the chromate dip omitted. Patch

testing of 12 men who had developed dermatitis since the modification of the process revealed no further cases of chromate sensitivity. This cause of allergic dermatitis appears to have been eliminated from this department