

CONTACT POINTS

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An unusual case of mercurial baboon syndrome: lasting seasonal attacks in a retired metalworker

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Mercurial baboon syndrome (BS) is a systemic allergic contact dermatitis with a characteristic distribution pattern, mainly provoked by the inhalation of metallic mercury vapours. Exposure to a broken thermometer is a common cause (1, 2). Herein, an unusual way of mercury exposure is reported that led to home-related seasonal attacks of BS in a retired metalworker with a history of work-related BS.

Case Report

A 42-year-old Turkish man presented with bright-red itchy erythema involving the buttocks, anogenital area, upper inner surface of the thighs, and major flexures like antecubital, popliteal, axillary fossae, and the neck. He was a foundryman in an ironworking factory where he had worked with various metals like iron, chrome, copper, and mercury using protective gloves and clothing for 13 years. The first similar attack of dermatitis started in the 10th occupational year showing frequent recurrences and a parallel course to his occupation. Each new start to work resulted in a new attack within 2 days that resolved only with sick leaves and systemic corticosteroid therapy. The condition had led to an early retirement 6 years ago. A dramatic decrease occurred in the fre-

quency of the attacks but they did not completely disappear.

Interestingly, the patient reported regular attacks twice yearly, 1 in the spring and 1 in the autumn since his retirement. Fever or accompanying systemic symptoms did not occur in the present and the previous attacks. There was no history of atopy.

Routine laboratory examination and chest radiography showed no abnormalities. Skin biopsy performed during a previous attack had shown perivascular inflammatory infiltration in the upper dermis. The lesions cleared with systemic corticosteroids within 10 days.

According to the grading system recommended by the International Contact Dermatitis Research Group (3), patch testing showed strong (++++) positive reactions to mercury ammonium chloride (1% pet.), thimerosal (0.05% pet.), phenylmercuric acetate (0.01% pet.), and metallic mercury (0.5% pet.) at 2 and 3 days and negative to other metals, metalworking fluids, and the European Standard Series (Briar Allergen, Germany).

The patient had used Mercurochrome frequently. He had developed erythema and vesicles on the hand following its application a few months prior to the first attack. Thimerosal-containing vaccinations against tetanus caused no reaction in the past. He had no dental amalgam fillings or any contact with broken thermometers.

Interestingly, he was keeping metallic mercury in a covered glass jar at home for 9–10 years and ritually taking the lid of the jar off every spring and autumn for a few days because he believed that this would bring good luck. He remembered to have performed so just 1–2 days prior to the last attack. The contact with mercury was stopped, and no new attack occurred during a 1-year follow-up.

Discussion

The presented case was diagnosed as mercurial BS according to the clinical and patch test findings. Patch tests

were positive against all 3 chemical forms of mercury: metallic mercury showing current clinical relevance, inorganic mercury ammonium chloride with a past clinical relevance, and organic mercurials thimerosal and phenylmercuric acetate with unknown clinical relevance. Cross-reactions between metallic mercury and the organic and inorganic mercurial compounds may occur (4).

Thimerosal in previous vaccinations or merbromin, contained in Mercurochrome, could have been the primary sensitizer in the presented case. Inhalation of mercury vapour seemed to be the route of exposures in the workplace. A micro-environmental exposure to mercury vapour has been demonstrated in factories utilizing metallic mercury, presumably from contaminated clothing and hands (5).

The unexpectedly regular seasonal attacks of BS after retirement could be attributed to mercury vapour exposure at home. A few cases of BS have been reported with unusual ways of mercury exposure such as from mercury that was kept in a bottle as a table decoration (6), or as a toy (7), or from the cracked cover of a skill game called 'mercury maze' (8), or even because of purposely breaking thermometers for playing or experimenting with mercury droplets (9). Keeping metallic mercury in a jar for good luck, and ritual exposures to its vapour seasonally, was another peculiar way of mercury exposure that was not reported before.

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