PIGMENTATION

CARPENTER'S PIGMENTATION MIMICKING ASHY DERMATOSIS ASSOCIATED WITH AFRICAN PADAUK WOOD DUST

Yiming Li [1] - Li Li [2] - Xiaoqin Xie [2]

The First Affiliated Hospital Of Chengdu Medical College, Dermatology And Venerology, Chengdu, China [1] - Huaxi Hospital, Dermatology And Venerology, Chengdu, China [2]

Background: Various adverse cutaneous reactions may occur as a result of exposure to wood dust or exotic woods. The dyspigmentation associated with padauk wood dust has never been reported.

Observation: A male carpenter has developed generalized melanosis for 11 years. Physical examination revealed the reticulate pigmentation were characterized by bilateral, symmetrical, gray-brown patchy or mottled pigmentation on the face, neck, nape, arms, forearms, armpits, breasts, abdomen, and back. Palms, nails, teeth, gingiva, mucosae, and areas below the waist were normal. Generally he worked with African Padauk, Russian Pinussylvestris, and latex.
Laboratory investigations including immunology profile were normal. Skin biopsy for hyper-pigmented lesions showed scattered dyskeratotic cells in the prickle layer, increased melanocytes in the basal layer, perivascular melanophages and lymphocytic infiltration in the dermis, and liquefaction of basal layer. Positive patch tests were observed with African Padauk wood dust.
The patient was treated with oral vitamin C, vitamin E, compound glycyrrhizin, and topical retinoids. The patient was instructed to avoid padauk wood dust and sun exposure. A significant improvement was noticed on last visit. By the last visit he has had vitamin C and vitamin E for 15 months, compound glycyrrhizin for 8 months, topical retinoid on the face for 12 months.

Key message: Type IV hypersensitivity has been suggested to play a role in occupational dermatitis. Other mechanism would be individual susceptibility and subclinical injury or inflammation.
For this case, the clinical and pathology correlation were suggestive of two conditions, erythema dyschromicum perstans/ashy dermatosis or pigmented contact dermatitis. These two conditions both have a potential allergic etiology and generalized hyperpigmentation at late stage. Histologically both have melanin incontinence, melanophages in the papillary dermis, and lichenoid lymphocytic infiltration. The histopathology presented could be potentially interpreted as an interface dermatitis with pigment incontinence.