

Co-existence of contact leukoderma and pigmented contact dermatitis attributed to *Clematis chinensis* Osbeck

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Contact leukoderma is characterized by loss of pigment on exposure to chemical agents. Hyperpigmentation as a feature of allergic contact dermatitis has been extensively described by Osmundsen. However, co-existence of contact leukoderma and pigmented contact dermatitis is rare.

Case Report

A 34-year-old man was seen for a localized depigmented maculae surrounded by an irregularly pigmented patch on the left wrist for 8 months. He had suffered from intermittent wrist pain for almost 10 years. 1st topical application of fresh *Clematis chinensis* osbeck (CCO) dated back to 13 months before to relieve wrist pain. Pruritic erythema had been noted following each use of CCO about twice weekly for 5 months before hyper- and hypopigmentation

appeared. General health was good. Clinical examination showed an irregularly shaped depigmented patch and a hyperpigmented patch on the volar aspect of his left wrist (Fig. 1). There were no pigmentary changes elsewhere. Patch test both with alcoholic and aqueous extracts of CCO was positive (++) . However, test with the European Standard series were completely normal. 20 controls were negative to alcoholic and aqueous extracts of CCO. Spontaneous moderate lightening of the hyperpigmentation started 6 months later. However, there was no repigmentation on the central leukoderma.

Discussion

Contact leukoderma is a hypochromia secondary to the action of certain chemicals that can produce specific and selective melanocytopenia. This process is toxic and may or may not be accompanied by allergic contact dermatitis. The most common melanotoxic chemicals include phenols and catechols. And other chemicals include Alstroemeria, CarbyneA, cerium oxide, cinnamal et al. (1).

There was contact dermatitis in some cases with pigmented contact dermatitis preceding the hyperpigmentation, while others did not present any signs of dermatitis, such as itching or erythema. The main contact sensitizers producing secondary hyperpigmentation include Tinopal Ch 3566, Naphthol AS, benzyl salicylate, hydroxycitronellal, D&C Red 31, Phenyl-azo-2-naphthol, D&C yellow 11&10, Carbanilides, Ylang-ylang oil, Cananga oil, Jasmin absolute, synthetic sandalwood, sandalwood oil, etc. (2).

CCO has been long used as an analgesic, diuretic, and anti-inflammatory agent in traditional Chinese medicine. Side effects such as erythema, bullae, palpitations, and dyspnoea have been reported after contact with fresh CCO (3). This is the first report of pigmentary abnormalities secondary to contact dermatitis from exposure to CCO.

CCO is a species of Ranunculaceae that contains Protoanemonin and anemonin, which are irritant agents to the skin and mucosa. However, the exact mechanism underlying this kind of pigmentary changes remains to be elucidated.

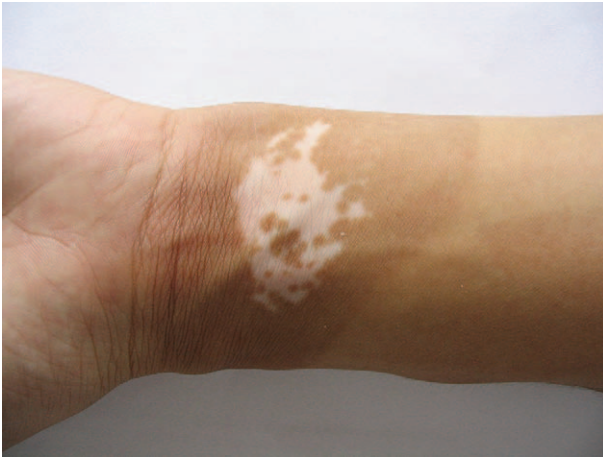


Fig. 1. An irregularly shaped depigmented patch and a hyperpigmented patch presented on the volar aspect of his left wrist.

References

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