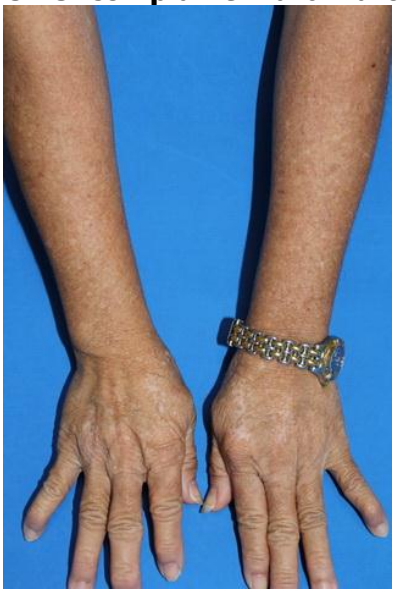
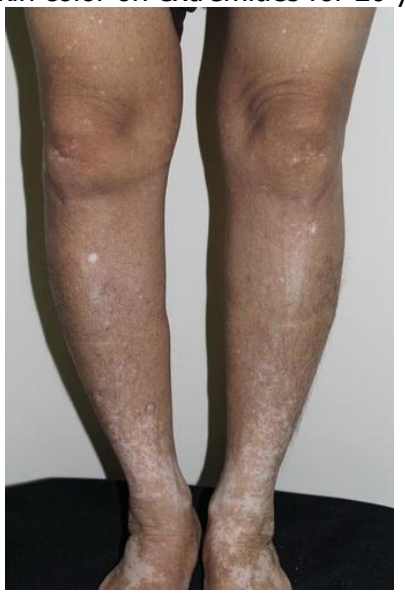
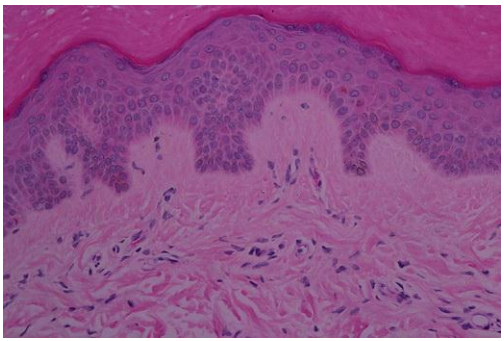
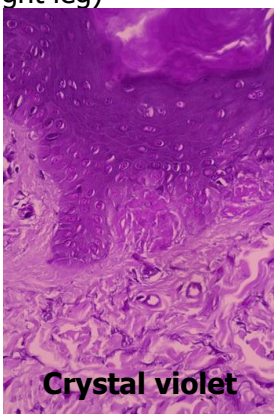
Case 18
A 63-year-old woman from Pathumthani.
Chief complaint: Abnormal skin color on extremities for 20 years.

Present illness: The patient first noticed darkening of her skin on the dorsa of feet approximately 20 years ago. The pigmentation slowly spread upward to her shins, while her hands and forearms were also gradually involved. Over the last few years, she developed numerous small white spots on top of the dark patches. She never experienced any itch, pain, tenderness, redness, bruising, bleeding, or swelling over the skin lesions, except moderate itching localized to the dorsa of her ankles and feet, which she often scratched with her fingernails or other hard objects to find some relief. She denies history of prolonged fever, weight loss, joint pain or swelling, bone pain, fatigue, abnormal bleeding, or sensitivity to sunlight.
Past history: She has no other medical conditions and denies history of any drug or chemical use, either orally or topically.

Family history: None of other family members have similar skin lesions.
Physical examination: Her vital signs, HEENT, cardiovascular, respiratory, and abdominal examinations were normal.
Skin examination: Ill-defined, brownish, hyperkeratotic plaques topped with multiple well-defined hypopigmented macules and small patches on the extensor aspect of forearms, hands, legs, and feet.
Histopathology (S12-17717A, hypopigmented macule on right leg; S12-17717B, brownish plaque on right leg)





• Mild epidermal hyperplasia with abundant epidermal melanin
• Multiple, small, eosinophilic globules admixed with some melanophages within the papillary dermis
• Each globule highlighted by crystal violet and congo red staining
Diagnosis: Dyschromic amyloidosis
Treatment: 10% urea cream applied twice daily, 10% lactic acid cream applied twice daily, and 0.05% clobetasol propionate cream applied twice daily to itchy areas

Presenter: Kunlawat Thadanipon, M.D.
Consultant: Chanitwan Wichayachakorn, M.D.

Discussion

Dyschromatoses are a group of pigmentary disorders characterized clinically by the combination of hypopigmented and hyperpigmented lesions, which can be a presentation of genodermatoses, inflammatory skin diseases, infections, drug and chemical use, or nutritional disorders. The major causes of dyschromatoses with onset in childhood are genodermatoses. In adults, the causes of dyschromatosis, as detailed in figure 1, may comprise exposure to drugs and chemicals, autoimmune diseases, infections, and other miscellaneous conditions, including dyschromic amyloidosis which may have an onset in either childhood or adulthood.[1, 2] Skin biopsy may help in the diagnosis of some of these conditions.

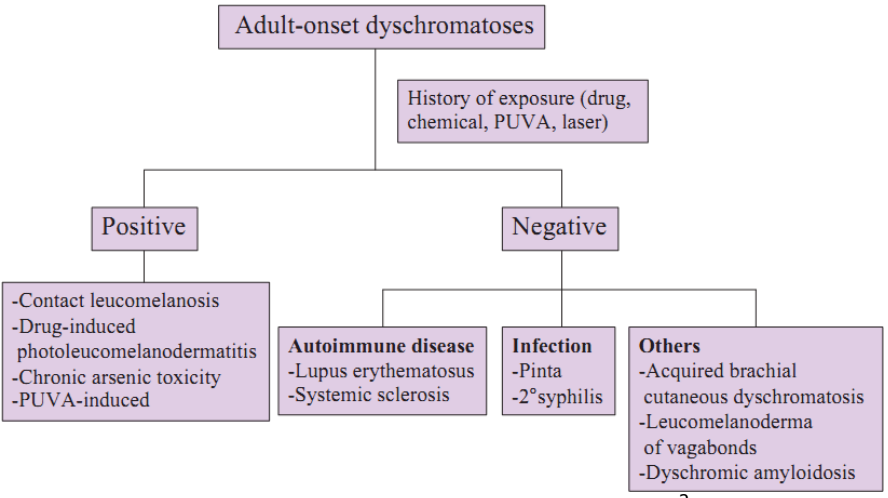


Figure 1: Approach to adult-onset dyschromatoses.[2]

Amyloidosis is a group of several diseases characterized by abnormal extracellular deposition of fibrillar proteinaceous substance, known as amyloid, of which over 20 types have been identified. Localized cutaneous amyloidosis may be classified into 2

types, primary and secondary. The latter is found in association with skin tumors, inflammatory disease (e.g. porokeratosis), and PUVA treatment.[3] Primary cutaneous amyloidosis refers to the deposition of amyloid in previously normal skin without systemic involvement. It consists of 3 classic forms, i.e. macular, lichen, and nodular,[4] as well as many other rare variants, e.g. dyschromic, poikiloderma-like, bullous, vitiliginous, and anosacral forms.[5] Overlaps among different forms have also been reported.[5, 6] In nodular amyloidosis, the amyloid deposits are derived from immunoglobulin light chains, similar to primary systemic amyloidosis observed in multiple myeloma and other plasma cell dyscrasias. By contrast, the amyloid of macular and lichen amyloidosis is mainly derived from cytokeratin 5, which comes from basal keratinocytes.[3]

Our patient is diagnosed with dyschromic amyloidosis, due to the dyschromatosis as the clinical presentation and the amyloid deposit in the papillary dermis, as shown by histopathology. There have been a number of published cases of primary cutaneous amyloidosis in association with dyschromatosis. The most frequently reported form is amyloidosis cutis dyschromica. Morishima first defined the condition in 1970 as having (i) dotted, reticular hyperpigmentation with hypopigmented macules distributed over nearly all of the body, (ii) no or little itch, (iii) onset before puberty, and (iv) focal amyloid deposition under the epidermis.[7] Subsequently, there have been several reports of almost exclusively Asian patients, some of whom are familial cases,[8-10] conforming to these criteria. Nevertheless, the genetic basis of amyloidosis cutis dyschromica is still unknown.[7] The clinical findings of our patient are similar to those cases, except for the onset in adulthood. A few cases of adult-onset dyschromic amyloidosis have also been reported.[11] Therefore, it is not clear whether the pediatric-onset and adult-onset forms of dyschromic amyloidosis represent the same disease spectrum or different

entities. However, these conditions seem to be benign, without extracutaneous involvement, as the amyloid deposits are epidermal-derived and not associated with systemic amyloidosis.

Treatment of primary cutaneous amyloidosis is often unsatisfactory. Topical corticosteroids, keratolytics, dimethyl sulfoxide, capsaicin, and carbon dioxide laser have been tried with variable success.[10] Only topical treatment was given to our patient. Oral acitretin have been reported to be effective in some cases.[9, 12] Thus, it may be considered in the future if the current treatment gives unsatisfactory results.

References

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