



Editorial

# Acquired dermal macular hyperpigmentation – A name for conglomerate of entities

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The nomenclature surrounding the dermal pigmentary disorders including lichen planus pigmentosus (LPP), Riehl's melanosis or pigmented cosmetic dermatitis (PCD), Ashy dermatosis (AD), and erythema dyschromicum perstans (EDP) has been a subject of debate and confusion. Since the last decade, the dilemma regarding the terminology and semantics of these conditions has peaked. These disorders do not have a pre-existing inflammatory phase and morphologically present as slate-grey to brownish hyperpigmented macules predominantly involving the face and neck. When we peep into the history, dermal pigmentary disorders have been reported under various fancy terminology, including LPP, PCD, AD, EDP, lichen dyschromicum perstans, invisible pigmented lichen planus, Cinderella dermatosis, and Los cenicientos to name a few. Despite differences, the dermal pigmentary disorders published under the various banners had a similar clinical picture with overlapping dermoscopy and histopathology features. The first effort for a unifying perspective terminology to reflect the common characteristics of all these disorders was done by Kumarasinghe *et al.*, who introduced the term “acquired macular pigmentation of uncertain etiology” or “dyschromia of uncertain etiology” to encompass them. This was later refuted by Gupta and Sharma, who proposed the term “macular hyperpigmentation of uncertain etiology” to describe these disorders. The term was reflective of common features and poorly understood etiopathogenesis of these disorders. After a lot of thought, we, in 2017, introduced the unifying term “Acquired Dermal Macular Hyperpigmentation” (ADMH). This term was chosen, as it comprehensively describes the origin and natural history of these disorders (acquired), localization of pigment (dermal), and character of slate-grey and brownish hyperpigmentation (macular hyperpigmentation). This term was acknowledged by a global consensus comprising multiple experts in the field of pigmentary disorders from across the globe. ADMH can be classified as “with and without contact sensitization,” as avoidance of the contact allergen plays an important role in the management of patients with contact sensitization.

The patients of ADMH are usually middle-aged females with darker Fitzpatrick skin types presenting with brown to slate-grey hyperpigmented macules of varying sizes having a predilection for head, neck, and the flexures. The symptoms are usually mild, and the course of the disease is chronic with initial progression and later persistent plateau phase. The dermoscopy shows dermal pigmentation in the form of brown dots and globules, often in a reticulate pattern. The histopathology generally shows a thinned out epidermis, subtle basal cell vacuolization and dermal inflammation, and significant pigmentary incontinence.

Despite these efforts to unify the disorders, there is always an alternate school of thought that tries to differentiate the disorders wherever possible. The first series of 40 cases with

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acquired macular pigmentation came from India in 1974 by Bhutani *et al.*, who named the condition as “LPP.” LPP is characterized by discrete, relatively well-defined dark brown colored macules that coalesce to form patches predominantly affecting people with darker skin types on sun-exposed areas and the flexures. That can be associated with other forms of lichen planus. We were able to demonstrate minimal expression of interleukin (IL)-17A, IL-22, IL-23A/R, interferon-gamma, and Foxp3 in LPP patients vis-à-vis lichen planus and post lichen planus hyperpigmentation, indicating that it is a distinct and pauci-inflammatory disorder that lacks the expression of Th17 pathway. The term Riehl’s melanosis is named after Riehl, who described a series of cases with facial hyperpigmentation in 1917. In 1976, Nakayama *et al.* introduced the term “PCD,” in cases where cosmetic allergens were implicated in the causation of pigmentation. PCD is characterized by diffuse or patchy brownish pigmentation with ill-defined margins and some scaling predominantly over forehead, zygomatic and temporal areas, and lateral face. It is usually itchy and is considered a type IV hypersensitivity to antigens commonly in cosmetics and hair dye. The first description of “AD” was done by Ramirez in 1947, whereas the term “EDP” was coined by Convit *et al.* in 1961. AD and EDP are considered to be on the same spectrum of disorders with characteristic

grey-brown, blue-grey to black-grey colored, polycyclic macules predominantly over trunk and proximal arms primarily, and may extend to the neck and face. EDP usually has a rim of erythema with an elevated border with a prior itchy phase.

The Acquired Dermal Macular Hyperpigmentation Area and Severity Index (DPASI) is a validated tool based on dermoscopic findings for quantitatively assessing the severity of ADMH. DPASI scores correlate well with histopathological severity and the extent of pigmentary incontinence, making it a valuable tool for monitoring the condition’s progression and treatment response.

Thus, ADMH is a term coined to encompass these diverse groups of dermal hyperpigmentation disorders, including AD, EDP, PCD, and AD. These disorders have been clubbed in the absence of any diagnostic individual clinical, dermoscopic or histopathological criteria. The introduction of the term ADMH has simplified the classification of these disorders, thus making it easier for clinicians to navigate their diagnosis and treatment.

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