Diagnostic Pitfalls in Acquired Hyperpigmentation: A Case of Erythema Dyschromicum Perstans

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Case Presentation:
A 35-year-old Hispanic female was referred by obstetrics and gynecology for evaluation of a hyperpigmented rash first noted during her previous pregnancy. She reported gradual development of dark patches involving the neck, back, arms, dorsal hands, and feet associated with intermittent pruritus. She had not previously attempted to treat the rash. Physical examination was notable for ill-defined blue-gray patches on the lateral and posterior neck, arms, and dorsal hands without overlying scale. Erythema dyschromicum perstans (EDP) was favored clinically. Punch biopsy revealed lichenoid and interface dermatitis with pigment incontinence which supported a diagnosis of EDP. The patient was started on systemic isotretinoin therapy with scheduled follow up.

Discussion:
Acquired disorders of hyperpigmentation are a frequent source of diagnostic uncertainty in dermatology, particularly among patients with skin of color. EDP is an uncommon dermal pigmentary disorder characterized by slate-gray to blue-brown macules and patches that most frequently occur in individuals with Fitzpatrick skin types III–V. Lesions are typically symmetric and may involve both sun exposed and non-sun exposed sites, including the trunk, extremities, neck, and face. The chronic and indolent nature of EDP, along with its clinical overlap with other pigmentary conditions, contributes to diagnostic delay and therapeutic uncertainty. This case highlights the diagnostic challenges associated with acquired dermal hyperpigmentation, particularly in patients with darker skin types. EDP is often underrecognized and may be mistaken for more common pigmentary disorders such as melasma or post-inflammatory hyperpigmentation, especially when inflammatory features are minimal and onset occurs in hormonally influenced settings such as pregnancy. Misdiagnosis as melasma may lead to prolonged treatment with topical bleaching agents or sun protection alone allowing continued progression and persistence of dyspigmentation. In contrast to epidermal pigmentary disorders, EDP is characterized histologically by interface dermatitis and dermal pigment incontinence, findings that support its classification within the spectrum of acquired dermal hyperpigmentation. Recognition of these clinicopathologic features is essential, as delayed diagnosis may result in more extensive and treatment-refractory pigmentation and increased psychosocial burden. Heightened awareness of EDP and its mimickers can facilitate earlier biopsy, appropriate therapeutic intervention, and improved outcomes in patients presenting with chronic hyperpigmented eruptions.