PIGMENTATION

A CROSS-SECTIONAL CLINICO-PATHOLOGICAL STUDY OF NON MELASMA FACIAL HYPERPIGMENTATION

Manas Chatterjee [(1)]

Institute Of Naval Medicine, Inhs Asvini, Department Of Dermatology, Mumbai, India [(1)]

Introduction: Non melasma facial pigmentation has not been rigorously studied, especially in India. There is etiological and clinical overlap, hence diagnostic and therapeutic dilemma.

Objective: This study assessed distribution, clinico-dermoscopic features and histopathological & immunohistochemical spectrum of non-melasma facial hyperpigmentation.

Materials and Methods: One hundred consecutive patients with non-melasma facial pigmentation from a Dermatology Department in Kolkata, India were studied. Inclusion criteria were patients of all ages and both sexes with non-melasma facial pigmentation. Patients who refused dermoscopy or biopsy were excluded. Dermoscopy was performed with Heine Delta 20 Plus. Biopsies were stained with H&E and immunohistochemistry with CD4, CD8 and Melan A.

Results: There were 44 males and 56 females. Mean age was 46 years. 58 patients had hyperpigmentation on other body parts also. Clinical diagnosis of pigmented contact dermatitis (PCD) was made in 47% and Lichen planus pigmentosus (LPP) in 23%. Other conditions were facial acanthosis nigricans (FAN), macular amyloidosis (MA), post-inflammatory hyperpigmentation (PIH), maturational hyperpigmentation (MH) and pigmentary demarcation lines (PDL). Clinico-dermoscopic correlation was highest in LPP (74%), followed by MH (66%) and PCD (63%). Clinoco-pathological correlation was best in PIH (100%), LPP (92%) and PCD (82%).
A histopathology of PCD was correlated with hypothyroidism ($p < 0.01$). Cohen's Kappa were higher than 0.9 in PCD and LPP and below 0.4 in FAN and MA. Focal epidermal atrophy was a statistically significant histopathological attribute of LPP. Finally, immunohistochemistry with CD4, CD8 and Melan A revealed no definitive correlation between IHC and histopathology.

Conclusions: Dermoscopy is not a reliable means of assessing non melasma facial pigmentation. Clinical diagnosis is reliable in the diagnosis of LPP and PCD but not MA and AN, where histopathological correlation is necessary. Focal epidermal atrophy is an

additional histopathological feature of LPP. An association between hypothyroidism and pigmented contact dermatitis needs further study.