



DERMOSCOPY AND SKIN IMAGING

## DERMOSCOPIE EVALUATION IN 119 INDIAN MELASMA PATIENTS AND CORRELATION WITH OTHER METHODS IN ITS CLASSIFICATION

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**Introduction:** Melasma constitutes most common facial melanosis among Indians. Depth of melasma is significant for prognosis and therapeutic response for which clinical examination alone's not sufficient.

**Objective:** To study dermoscopic features of melasma and classify based on dermoscopic features. And to study correlation between wood's lamp and dermoscopic findings and between clinical and dermoscopic findings.

**Materials & methods:** 119 melasma cases aged  $\geq 18$  years were enrolled. Patients were classified as epidermal, dermal, mixed type clinically. Were subjected to Wood's lamp and dermoscopic evaluation for various features and to classify.

**Results:** On dermoscopy, reticular network of pigmentation was well-defined in 98(82.4%) and diffuse in 21(17.6%). Color of globules/blotches was light brown in 89(74.8%), dark brown in 24(20.2%), blue-grey in 6(5%). Annular/arcuate structures were in 7(5.9%). On dermoscopy, 88(73.9%) were epidermal, 25(21%) mixed, 6(5%) dermal. Clinically, 90(75.6%) were epidermal, 26(21.8%) mixed and 3(2.5%) dermal. On Wood's lamp examination, 74(62.2%) had pigmentation accentuation, 21(17.6%) had no accentuation, 24(20.2%) had accentuation in few areas. On Wood's lamp, epidermal, mixed, dermal type were found in 74(62.2%), 24(20.2%) and 21(17.6%) respectively. Degree of correlation of depth clinically and with dermoscope in epidermal type was 92%, in mixed type 64% and in dermal type 33.3%(p-value-0.0001). Kappa-coefficient between types of melasma clinically and on dermoscopy was 0.573. Degree of correlation by Wood's lamp and dermoscopy in epidermal type was 63.6%, in mixed type 20%, in dermal type 33.3%(p-value-0.683). Kappa-coefficient between types according to wood's lamp and dermoscopy was 0.037.

**Conclusions:** Its recommended to combine dermoscopy with clinical examination to increase sensitivity of classifying melasma based on depth. Dermoscopy also detects vascular features like telengectasias, atrophy, exogenous oochronosis(even in early stages),aiding in monitoring treatment induced side-effects. Its easy, non-invasive, patient-friendly, reproducible, useful. Dermoscopic images can be preserved for record keeping and





in follow-up visits to monitor treatment response.

