

*Research Article***Study of wood's lamp and dermoscopic features of melasma.****Fatma Y. Saleh, Eman S. Abdel-Azim, Zeinab S. Mohamed.**

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Abstract

Background: Melasma is the main cause of facial hyperchromia and has a significant psychosocial impact. **Aim of the study:** determine type of melasma according to depth of melanin. **Research methodology:** this is observational descriptive study, included patients with melasma with different pattern of involvement. **Results:** three clinical pattern of melasma are observed clinically, 81% present progressive course, 42.42% diagnosed mixed melasma by Wood's light, and 72.72% by Dermoscopy. **Conclusion:** Wood's light, Dermoscopy can be used as a diagnostic tool in melasma.

Keywords: Melasma.**Introduction**

Melasma is an acquired hypermelanosis of sun exposed areas commonly seen in women, it can also occur in men. It presents as symmetrical hyperpigmented macules and patches commonly over the cheeks, nose, chin and forehead (Balkrishnan et al., 2006; Gupta et al., 2006).

Research methodology:

Study design: this is an observational descriptive study was conducted among patients attending outpatient clinic of

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Ethical consideration: data were collected from patients after explaining the nature of the study and taking a consent from each of them.

Results

The collected data were coded, tabulated and statistically analyzed using SPSS program (Statistical Package for Social Sciences) software version 23.

Table (1): age, course and relation to sun exposure and pregnancy among melasma patients

	No
Age (mean± SD)	24-50(35.2±6.6)
Course (progressive)	27 (81%)
Relation to sun exposure	16 (48.5%)
Relation to pregnancy	16 (48.5%)

As shown in table (1), the study conducted in female patients whose age ranges between 24-50 years with a mean of (35.2±6.6),

Almost 81% present progressive course, 48.5% related to excessive sun exposure and pregnancy.

Table (2): mixed melasma by Wood's light and Dermoscopy.

Method	No
Wood's light	14 (42.42%)
Dermoscopy	24 (72.72%)



Fig. (2): Clinical, Wood's light and Dermoscopic examination of Mixed melasma.

Discussion

Melasma is a symmetric progressive hyperpigmentation of the facial skin that occurs in all races but has a predilection for darker skin phenotypes (Perez, 2005).

Melasma predominantly affects Fitzpatrick skin phototypes III and IV and often lasts for many years after pregnancy (Sheth and Pandya, 2011).

The diagnosis of melasma is usually made clinically and is rather straight forward due to its characteristic appearance. Wood's light and dermoscopy are used as a method of melasma classification (Tamler et al., 2009). Wood's light is a low output mercury arc covered by a Wood filter (barium silicate and 9% nickel oxide), and emits wavelength 320–400nm (peak 365 nm) (Gupta and Singhi, 2004).

Therefore, it seems that the clinical use of wood's light is not accurate in determining the level or the depth of melanin pigment in melasma, and skin biopsy may be an attractive option in detecting clearly the depth of pigment (Kang and Ortonne, 2010).

Dermoscopy is a non-invasive technique, a proven reliable tool for direct visualization of skin pigmentation (Piccolo et al., 2006).

Conclusion

Dermoscopy is more suitable for examination for melasma, since it allows visualization of pigmentary components in more objective way. It also helps to understand the prognosis and management.

References

1. Balkrishnan R, McMichael AJ, Hu JY, Camacho FT, Shew KR, Bouloc A, Rapp SR and Feldman SR (2006). Correlates of health-related quality of life in women with severe facial blemishes. *Int J Dermatol*, 45(2):111-115.
2. Gupta LK and Singhi MK (2004). Wood's lamp. *Indian J Dermatol Venereol Leprol*, 70(2): 131-135.
3. Gupta AK, Gover MD, Nouri K and Taylor S (2006). The treatment of melasma: a review of clinical trials. *J Am Acad Dermatol*, 55(6):1048-1065.
4. Kang HY and Ortonne JP (2010). What should be considered in treatment of melasma. *Ann Dermatol*, 22(4): 373-378.
5. Perez MI (2005). The stepwise approach to the treatment of melasma. *Cutis*, 75(4): 217-222.
6. Piccolo D, Fargnoli MC, Ferrara G, Lozzi GP, Altamura D, Ventura T, Chimenti S and Peris K (2006). Hypoepiluminescence microscopy of pigmented skin lesions: new approach to improve recognition of dermoscopic structures. *Dermatol Surg*, 32(11):1391-1397.
7. Sheth VM and Pandya AG (2011). Melasma: a comprehensive update: part I. *J Am Acad Dermatol*, 65(4): 689-697.
8. Tamler C, Fonseca RMR, Pereira FBC and Barcaul CB (2009). Classification of melasma by dermoscopy: comparative study with Wood's lamp. *Surgical & Cosmetic Dermatology*, 1(3): 115-119.