Diagnostic Evaluation of Hypopigmentary and Depigmentary Disorders

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Abstract

Hypopigmentary and depigmentary disorders frequently present with overlapping clinical features, making accurate diagnosis challenging. This hospital-based observational cross-sectional study evaluated 200 patients presenting with hypopigmentary and depigmentary disorders attending a tertiary care dermatology outpatient department. All patients underwent detailed clinical examination, Wood's lamp examination, dermoscopic evaluation, and KOH microscopy where indicated. Males constituted 51.5% of cases, with the highest proportion belonging to the 11–20 year age group (33.5%). Vitiligo (36.5%) and pityriasis versicolor (35.0%) were the most common disorders observed. Wood's lamp examination demonstrated characteristic bluish-white fluorescence in vitiligo and greenish-yellow fluorescence in pityriasis versicolor. KOH examination was positive in 81.4% of pityriasis versicolor cases, showing the characteristic 'spaghetti and meatballs' appearance. Dermoscopy of vitiligo characteristically demonstrated an absent pigment network (69.6%), diffuse white glow (67.1%), and leucotrichia. Idiopathic guttate hypomelanosis showed an absent pigment network with well-defined amoeboid, feathery, and petaloid margins, while pityriasis versicolor predominantly exhibited scaling accentuated within skin creases. Pityriasis alba demonstrated ill-defined margins, a faint pigment network, and diffuse white scaling, whereas leprosy lesions revealed yellowish-orange structureless areas, distorted pigment network, and linear vessels. The study concluded that dermoscopy is an effective, rapid, and non-invasive diagnostic modality that, when combined with Wood's lamp examination and KOH microscopy, significantly improves the evaluation and routine diagnosis of hypopigmentary and depigmentary disorders.

Keywords

Dermoscopy, hypopigmentary disorders, vitiligo, pityriasis versicolor, wood’s lamp.