

IDIOPATHIC GUTTATE HYPOMELANOSIS A CASE REPORT**Dr. Shone Thomas Babu^{*1}, Dr. Sharmistha Rout², Dr. P. Karkuzhali³ and Dr. Hemalatha Ganapathy⁴**¹ 1st Year Postgraduate, Department of Pathology, Sree Balaji Medical College and Hospital, Chennai, Bharath University.² 2nd Year Postgraduate, Department of Pathology, Sree Balaji Medical College and Hospital, Chennai, Bharath University.³ Professor and Head of Department, Department of Pathology, Sree Balaji Medical College and Hospital, Chennai, Bharath University.⁴ Professor of Pathology, Department of Pathology, Sree Balaji Medical College and Hospital, Chennai, Bharath University.***Corresponding Author: Dr. Shone Thomas Babu**1st Year Postgraduate, Department of Pathology, Sree Balaji Medical College and Hospital, Chennai, Bharath University.

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ABSTRACT

Idiopathic guttate hypomelanosis (IGH) is a very common, acquired, and frequently ignored condition. The lesions of idiopathic guttate hypomelanosis (IGH) are commonly seen in elderly persons, characterized by an appearance of multiple, well-circumscribed, asymptomatic, polygonal, white macules symmetrically distributed on the extensor forearms and shins. Once present, skin lesions do not increase in size with time and do not coalesce. IGH occurs in all races and skin types, especially in elderly patients over the age of 70 years. IGH appears to result from an impaired synthesis of melanin, decreased size and poor melanization of melanosomes and inadequate transfer of melanosomes from melanocytes to surrounding keratinocytes. The diagnosis of IGH is usually made clinically. Despite straightforward clinical appearance of IGH in majority of cases, several additional diagnostic procedures may be needed for confirmation of diagnosis in some less clear cases.

KEYWORDS: Hypomelanosis; melanocytes; hypopigmentation.**INTRODUCTION**

Idiopathic guttate hypomelanosis (IGH) is an acquired, benign leukoderma of unknown etiology. IGH presents mostly in lightly pigmented, middle aged people as small, hypopigmented spots that appear chiefly on the sun-exposed areas of the extremities in individuals beyond age 30.^[4] It has a female preponderance, but is increasingly affecting both sexes these days. It can even affect older dark skinned people too. Idiopathic guttate hypomelanosis is a disorder with multifactorial etiology; its pathogenesis may depend on various factors such as patient age and sun-exposure. Lesions tend to increase in number with age. In one series of 452 patients, it was seen in only 20% of patients between ages of 20 and 30, but in 80% of patients over the age of 70.^[5] Non-actinic lesions on the covered areas are known to occur in Negroids.^[5] The lesions rarely become numerous, a dozen or two at most.^[6] It has been suggested that the disorder results from an age related somatic mutation of melanocytes.^[7] A variety of therapeutic methods, including topical steroids, topical retinoids, dermabrasion, cryotherapy and minigrafting, have been used for IGH with variable success.^[8] We are reporting a case of IGH with unusual findings.

CASE REPORT**History**

A 20 years old female patient, came with complaints of light coloured skin lesions over left lower limb x 4 years, which have gradually progressed to involve the bilateral upper limbs. There was no history of itching, pain or intake of any drug.

On Examination - Well defined hypopigmented macules over left lower limb and bilateral upper limbs.

Pathological Examination

Microscopic features – Sections showed hyperkeratotic, thinned out epidermis with flattening of rete pegs overlying fibrocollagenous dermis. There was partial absence of pigmentation in basal layer. Rest of epidermis showed increased pigmentation with basal cell vacuolar degeneration. Superficial dermis showed mild inflammatory infiltration surrounding capillaries and extravasated RBCs.

Impression

Picture was consistent with *Idiopathic Guttate Hypomelanosis*.

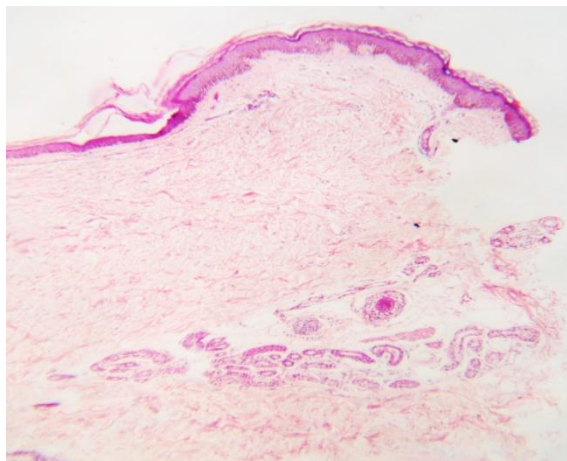


Fig. 1: In 10x view, section shows skin with hyperkeratotic, thinned out epidermis with flattening of rete pegs.

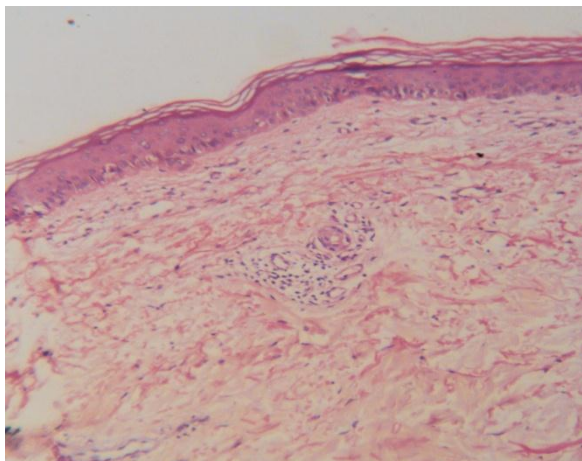


Fig. 2: In 40x view, section shows skin with partial absence of pigmentation in basal layer. Rest of the epidermis shows increased pigmentation with basal cell vacuolar degeneration.

DISCUSSION

Hypopigmented skin lesions are the commonly encountered cases and they pose a diagnostic challenge for the clinicians, since many of them appear similar. One has to differentiate hypopigmented lesions from vitiligo as it carries tremendous implications as a social stigma, in India. Idiopathic guttate hypomelanosis is one such hypopigmented skin condition which is also called as disseminate lenticular leukoderma and has to be distinguished from other conditions such as leprosy, vitiligo, pityriasis alba and pityriasis versicolor.^[5] IGH is usually diagnosed clinically following a complete history and physical examination. Patients with IGH should be examined under both visible and ultraviolet light of about 365 nm wavelengths (i.e. Wood's lamp). While under visible light, the contrast between hypomelanosis and surrounding skin is not striking in light-skinned individuals. With Wood's lamp examination more lesions may become apparent and a decrease in pigment is confirmed. Skin biopsy is not usually needed. Histologic examination of involved skin is usually most helpful for postinflammatory hypomelanosis such as sarcoidosis and mycosis fungoides. The histopathological findings in idiopathic guttate hypomelanosis are hyperkeratotic (which is the most common finding), atrophic and thinned out epidermis, flattening of rete pegs, decreased melanin content and reduced numbers of melanocytes. Melanocytes may have less melanosomes, dilated endoplasmic reticulum, swollen mitochondria and attenuated dendrites. In the dermis, fibroblasts, elastic and collagen fibres appear to have normal configuration. Areas of elastosis may be observed in the papillary dermis, which is the reason why some relate it to sun exposure. Although idiopathic guttate hypomelanosis is a non-inflammatory disorder,

mild infiltration by inflammatory cells may be seen in the dermis.

CONCLUSION

Creating awareness about the clinicopathological features of Idiopathic guttate hypomelanosis is of utmost importance because of its close resemblance with vitiligo and other hypopigmented lesions. Histopathology aids the clinician in making a correct diagnosis of this disorder, thus ameliorating anxiety and apprehension associated with the hypopigmented lesions in the society. The social stigma associated with such skin lesions should be completely wiped out through proper education and circulation of information to the general population.

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