International Journal of Healthcare Sciences ISSN 2348-5728 (Online)
Vol. 6, Issue 1, pp: (92-94), Month: April - September 2018, Available at: www.researchpublish.com

IDIOPATHIC GUTTATE HYPOMELANOSIS

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Abstract: **Idiopathic guttate hypomelanosis is a benign, common and frequently ignored condition characterised by hypopigmented spots on the skin. It occurs more commonly in middle age and fair skinned people. It is related to long term sun exposure and usually occurs in the extremities. The case is a 60 year old male who complaints of hypopigmented spots from a long time. The spots are painless, non-itchy and characteristic in location. The patient gave a long history of exposure to sunlight due to his job. The diagnosis is based on the clinical presentations. Atypical lesions may require a biopsy for confirmation of the diagnosis unlike in this case where characteristic location and appearance is helpful. A variety of treatment options ranging from medical to surgical are available. The patient is advised with medical treatment with local topical steroids looking at the benign nature and low number of hypopigmented spots. The prognosis is excellent and usually there are no complications after treatment.**

Keywords: **Idiopathic guttate hypomelanosis, hypopigmented spots, patient, medical treatment.**

1. BACKGROUND

Idiopathic guttate hypomelanosis (also known as "leukopathia symmetrica progressiva") is an common, acquired and benign lesion of unknown etiology characterized by multiple, round or oval, hypopigmented to depigmented macules which mainly appear in the extremities. Idiopathic guttate hypomelanosis is most commonly a complaint of middle-aged, light-skinned women, but it is increasingly seen in both sexes and older dark-skinned people with a history of long-term sun exposure. The cause is not known, but it appears to be related to the effect of the sun on melanocytes explaining its occurrence more in the extremities.

Prevalence:

The incidence of IGH is associated with advancing age. Although it affects nearly 3/4th of the population aged more than 40 years, it may also be present in young adults into the 20s and 30s. Epidemiological studies show that IGH occurs more commonly in females as compared to males.

Pathogenesis:

Despite the fact that the underlying pathways are still being underexplained, the pathogenesis of IGH seems to be complex and multifactorial. Its high incidence in adult population suggests that environmental factors play a significant role. Hereditary and genetic factors may also affect the pathogenesis of this disease.

Interestingly when IGH appears on the face, the distribution of the lesions mimics that of squamous cell carcinoma but these lesions are not malignant. The clinical observations are further supported by histopathological findings like solar elastosis and epidermal atrophy, which are indicative of actinic damage.

Histopathology:

The main histopathological findings observed in IGH lesions are solar elastosis, epidermal atrophy, basket weave hyperkeratosis and decreased number of melanocytes. Additionally, researchers have noticed the appearance of atrophic epidermis and flattened rete ridges. In the layer of the dermis the fibroblasts, collagen and elastic fibres appear to have normal configuration. Areas of elastosis are often observed in the papillary dermis because of the correlation of IGH with sun exposure.

Prevention:

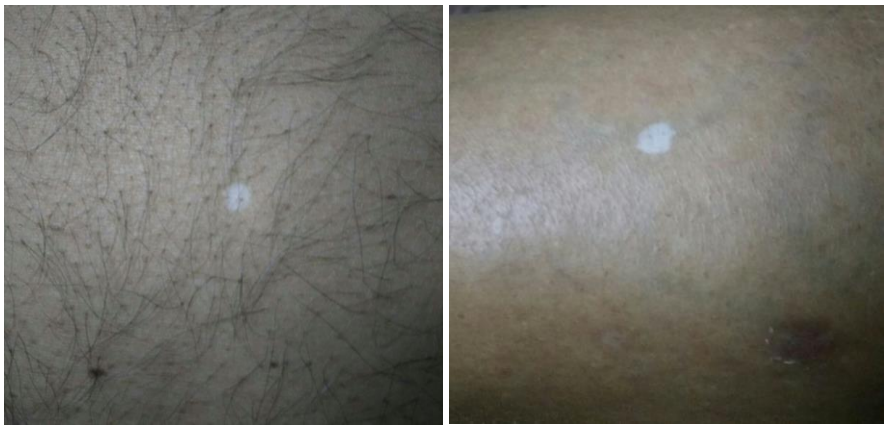
Idiopathic guttate hypomelanosis may be avoided by avoiding sun exposure for prolonged period.

Prognosis:

Prognosis is excellent as the disease is harmless and benign.

2. CASE PRESENTATION

A 60 year old male comes with a complaint of light colour 2.5x2.5 mm size spots in his bilateral legs. He first noticed one spot on his right shin 20 years and subsequently developed 2 more spots in his lower legs. On examination, there are painless, non-itchy hypopigmented spots in bilateral lower extremities. Patient gives history of prolonged exposure to sun related to his job. The characteristic presentation and history of sun exposure helps excluding other possible differential diagnosis like Vitiligo, Leprosy and Tinea versicolor infection. Patient is discussed with possible treatment options, strategy to avoid more such spots and prognosis of the disease. The patient opted for medical management with topical steroids.



HYPOPIGMENTED LESIONS

3. INVESTIGATIONS AND TREATMENT

Idiopathic guttate hypomelanosis is a clinical diagnosis and made on the basis of physical examination alone. The patient underwent physical examination of the extremities and the diagnosis was made based on that. The patient had typical clinical features of the disease although in atypical cases of idiopathic guttate hypomelanosis, a biopsy may be indicated.

Typical histologic findings are epidermal atrophy of the actinic type, a patchy decrease or absence of melanocytes and melanin, flat rete ridges, and basket weave hyperkeratosis. Skip areas of retained melanin can help histologically differentiate this condition from other disorders of pigmentation.

A Wood light examination could be helpful in revealing unsuspected involvement. Dopa staining can be useful because dopa-positive melanocytes are decreased.

Following treatment options are available:

Medical - Topical or intralesional corticosteroids, topical retinoid like tretinoin and in some cases Pimecrolimus.

Surgical techniques – options ranges from cryosurgery to dermabrasion with some success. Theoretically, cryotherapy would remove the damaged melanocytes, which would encourage growth of normal melanocytes to replace them.

The patient is prescribed with topical steroid ointment for 3 months.

4. DISCUSSIONS

Most of the recent studies have shown that disorders of pigmentation affect a large proportion of the population and according to current epidemiological evidence their prevalence shows essential rise, causing great concern not only for human health, but also for the induced social implications. Idiopathic guttate hypomelanosis is a benign condition with an excellent prognosis. Prevention of long term sun exposure may prevent the occurrence of the disease. Although, a large number of treatment options are available for treating this condition.

ACKNOWLEDGEMENT

I would like to thank the patient for his cooperation during history taking and examination. The patient granted the consent to publish his case keeping the identification hidden.

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