ORIGINAL RESEARCH

Assessment of localised hypomelanosis in children

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ABSTRACT

Background: Hypopigmentary cutaneous disorders are conditions where the skin loses its normal color, resulting in lighter patches or areas. The present study was conducted to assess localised hypomelanosis in children. **Materials & Methods:** 58 patients with localised hypopigmented lesions of both genders were selected. Detailed examination of the hypopigmentary lesion/lesions was done and findings were noted. **Results:** Out of 58 cases, 25 were males and 33 were females. Localised hypomelanotic lesions were vitiligo in 15, albinism in 12, pityriasis alba in 5, atopic dermatitis in 4, pityriasis versicolor in 6, lichen striatus in 2, seborrheic dermatitis in 5, discoid dermatitis in 2, post inflammatory hypopigmentation in 4, hypomelanosis of ito in 3 cases. Site was face in 42, upper limb in 25, lower limb in 21 and nape of neck in 38 patients. The difference was significant ($P< 0.05$). **Conclusion:** Common localised hypomelanotic lesions were vitiligo and albinism. A clinical approach to hypopigmented illnesses that takes into account the age at which the disease first manifests, the location of the lesion, and early evaluation is necessary to allay parental worries and guarantee the children's high quality of life.

Keywords: Children, Hypopigmentary cutaneous disorders, pityriasis versicolor

INTRODUCTION

Hypopigmentary cutaneous disorders are conditions where the skin loses its normal color, resulting in lighter patches or areas. These disorders can be congenital or acquired and often involve a reduction in melanin, the pigment responsible for skin color.[1]Any deviation from the typical pattern of pigmentation in skin color causes increased concern, particularly for parents regarding their children. Pigmentary disorders are prevalent in the age group of newborns, kids, and teenagers.[2]

There are two types of pigmentary changes: acquired and congenital, hypo- or hypermelanotic. Diagnosing hypopigmented lesions might be difficult. The degree of hypomelanosis, evolutionary history, color awareness, and awareness of related traits vary among them. A comprehensive examination that covers the cutaneous, systemic, and general areas must be performed, along with any necessary investigations.[3]Vitiligo is an autoimmune destruction of melanocytes, the cells responsible for producing melanin, the pigment that gives skin its color.Symptoms are depigmented white patches on the skin, often symmetrical, and can appear anywhere on the body.Treatmentincludes topical corticosteroids, calcineurin inhibitors, phototherapy, and, in some cases, surgical interventions.[4]

Albinism is a geneticmutation that affect melanin production. Albinism is a congenital condition, meaning it is present from birth.Symptoms are Little to no pigment in the skin, hair, and eyes, leading to a pale appearance and light sensitivity. Vision problems are also common.

There is no cure for albinism. Management focuses on protecting the skin from UV radiation and addressing vision issues.[5]The present study was conducted to assess localised hypomelanosis in children.

MATERIALS & METHODS

The present study was conducted on 58 patients with localised hypopigmented lesionsof both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. Parameters such as site, familial involvement, associated skin and systemic conditions etc. were recorded. Detailed examination of the hypopigmentary lesion/lesions was done and findings were noted. Examination under Wood's lamp in conditions like pityriasis versicolor, Naevi was documented. Other investigations like potassium

hydroxide mount to rule out pityriasis versicolor, slit skin smear and skin biopsy in certain conditions like Hansen's, lichen sclerosus et atrophicus (LsetA) etc., were done, if necessary.Results thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table IDistribution of patients

Total- 58		
Gender	**Male**	**Female**
Number	25	33

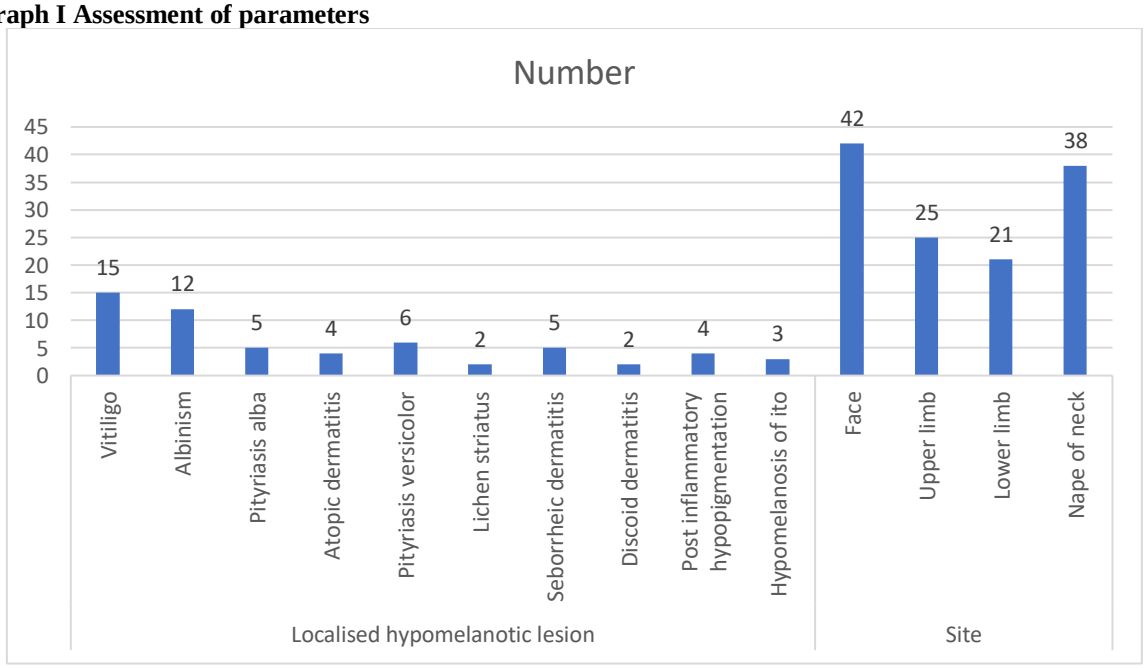
Table I shows that out of 58 cases, 25 were males and 33 were females.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Localised hypomelanotic lesion	Vitiligo	15	0.03
	Albinism	12	
	Pityriasis alba	5	
	Atopic dermatitis	4	
	Pityriasis versicolor	6	
	Lichen striatus	2	
	Seborrheic dermatitis	5	
	Discoid dermatitis	2	
	Post inflammatoryhypopigmentation	4	
	Hypomelanosis of ito	3	
Site	Face	42	0.75
	Upper limb	25	
	Lower limb	21	
	Nape of neck	38	

Table II, graph I shows that localised hypomelanotic lesions were vitiligo in 15, albinism in 12, pityriasis alba in 5, atopic dermatitis in 4, pityriasis versicolor in 6, lichen striatus in 2, seborrheic dermatitis in 5, discoid dermatitis in 2, post inflammatory hypopigmentation in 4, hypomelanosis of ito in 3 cases. Site was face in 42, upper limb in 25, lower limb in 21 and nape of neck in 38 patients. The difference was significant (P< 0.05).

Graph I Assessment of parameters



DISCUSSION

Pityriasis Albais often associated with atopic dermatitis and is more common in children and adolescents.Symptoms are light-colored patches on the face, neck, and arms, often with fine scaling. The patches are usually round or oval.Treatment is it is usually self-limiting, but emollients and mild topical corticosteroids may be used to improve appearance.[6]Tinea Versicolor (Pityriasis Versicolor) is a fungal infection caused by Malassezia

species.Symptoms are hypopigmented (or sometimes hyperpigmented) patches on the chest, back, and shoulders, often with mild itching.[7]Treatment is antifungal medications, either topical or oral, are typically effective. Post-inflammatory hypopigmentation occurs after skin inflammation or injury, such as burns, eczema, or psoriasis.Symptoms are lighter patches of skin where inflammation has resolved. The skin may gradually repigment over time, but this can take months or longer. Treatment may include topical steroids or calcineurin inhibitors to reduce inflammation.Hypomelanosis of Ito is a rare genetic condition characterized by streaks or patches of hypopigmentation following the lines of Blaschko, which represent embryonic cell migration pathways.[8]Hypopigmented streaks or patches on the skin, often associated with other developmental abnormalities, such as neurological or musculoskeletal issues.No specific treatment; management is based on symptoms and associated conditions.[9,10]The present study was conducted to assess localised hypomelanosis in children.

We found that out of 58 cases, 25 were males and 33 were females.Toossi et al[11]observedthat there were 400 preschool-aged children in kindergarten (mean±SD age, 3.7±0.8 years) and 1017 schoolaged children (mean±SD age, 10.7±2.4 years). There were 54 diagnoses among the 3216 skin manifestations in the 1143 children (80.7% of all children had skin conditions; 19.3% did not) for an average of 2.81 per patient. The most common conditions were disorders of pigmentation (64.2%), followed by dermatitis-related manifestations (49.8%). Mongolian spots were found in 103 preschool-aged children (7.3%), which was significantly associated with the presence of cafe´ au lait spots (P.001). Pityriasis alba had a male predominance (P.02). No cases of scabies or pediculosis were diagnosed.

We observed that localised hypomelanotic lesions were vitiligo in 15, albinism in 12, pityriasis alba in 5, atopic dermatitis in 4, pityriasis versicolor in 6, lichen striatus in 2, seborrheic dermatitis in 5, discoid dermatitisin 2, post inflammatory hypopigmentation in 4, hypomelanosis of ito in 3 cases. Site was face in 42, upper limb in 25, lower limb in 21 and nape of neck in 38 patients. Sori et al[12] found that the frequency of hypopigmentary disorders among children was 3.28 per 1000 children attending the dermatology out patient department. The mean age of the children was 7.2 years. The mean of age of onset was 7.36 years. Most common hypopigmentary disorder in our study was pityriasis alba (24.7%), followed by vitiligo (20.4%), leprosy (11.5%), nevus depigmentosus (10.18%), and tinea versicolor (6.2%). Others were hypomelanosis of Ito (5), post-inflammatory hypopigmentation (5), pityriasis rosea (4), steroid-induced hypopigmentation (4), lichen sclerosus et atrophicus (3), pityriasis lichenoides chronica (3), lichen striatus (2), oculocutaneous albinism (2), tuberous sclerosis complex (2), pigmentary mosaicism (1), and Griscelli syndrome (1).

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that common localised hypomelanotic lesions were vitiligo and albinism. A clinical approach to hypopigmented illnesses that takes into account the age at which the disease first manifests, the location of the lesion, and early evaluation is necessary to allay parental worries and guarantee the children's high quality of life.

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