

Pediatric rosacea in a patient with a dark phototype: Clinical and dermoscopic features

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Abstract

Rosacea is rare in children and patients with dark phototype. Dermoscopy helps make the correct diagnosis. Positive family history of rosacea is reported in affected children, which suggests a strong familial inheritance of the disorder.

KEYWORDS

dermoscopy, pediatric rosacea, phototype, Tunisia

1 | INTRODUCTION

Rosacea is commonly described in fair-skinned women and was rarely described in children with dark phototype. We report a case of a 10-year-old girl, with dark phototype who presented with rosacea. We highlight the clinical and dermoscopic findings of pediatric rosacea and emphasize the importance of positive family history.

Rosacea is a chronic inflammatory skin disease characterized by facial flushing, erythema, papules, pustules, and/or telangiectasias.^{1,2}

Rosacea is most commonly described in fair-skinned 30- to 50-year-old women and has rarely been noted in children and even rarer in patients with dark phototype.³ Some authors even doubt that rosacea can be observed in this age-group.⁴ Nevertheless, there are reports of pediatric rosacea in the dermatological and ophthalmological literature.⁴ It is probably under-recognized because parents tend to attribute flushing and erythema in children as a “healthy glow.”

We report herein a case of rosacea in a 10-year-old girl with dark skin type and discuss its pathogenesis and treatment.

2 | CASE REPORT

A 10-year-old girl, with type 4 phototype and no past medical history, presented with nonpruritic facial erythema evolving for 2 years. The eruption was exacerbated by sun exposure, and there was a tendency to flush at high temperatures. She denied the use of any topical treatment. Dermatological examination showed pronounced telangiectasias and scattered papules overlying symmetrical erythema on the cheeks (Figure 1A). The forehead, nose, and nasolabial folds were spared, and there were no pustules. Dermoscopy was performed showing linear and polygonal vessels (Figure 1B). Ophthalmological examination was normal. Physical examination was otherwise unremarkable. Results of laboratory tests, including complete blood count, 24-hour urine protein test, complements, and antinuclear antibody titer were within the normal range.

3 | DISCUSSION

In this patient, clinical and dermoscopic features were consistent with the diagnosis of pediatric rosacea. The facial

FIGURE 1 A, Erythematous and telangiectatic eruption on the cheeks. B, Dermoscopy showing linear and polygonal vessels

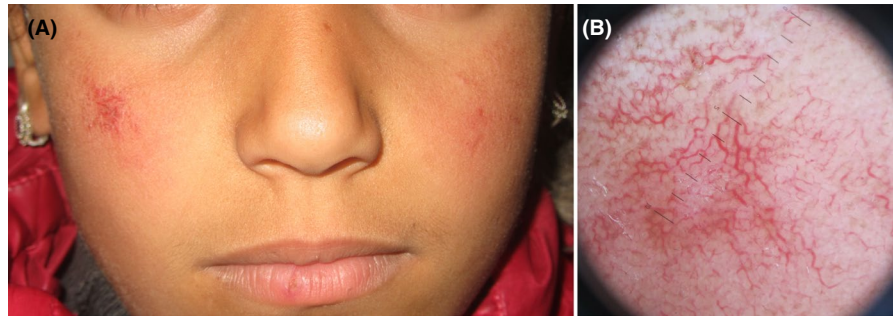


FIGURE 2 A similar clinical presentation made of facial erythema and telangiectasias in the patient and her mother



erythema associated with photosensitivity was suggestive of congenital erythropoietic porphyria and systemic lupus erythematosus. The latter were excluded on the basis of clinical and laboratory tests. Comprehensive questioning and examination of the patient's mother showed a history of erythematotelangiectatic rosacea (Figure 2). The diagnosis of rosacea in our patient was reinforced by the dermoscopic findings and the positive family history. Treatment consisted of topical moisturizers and photoprotection.

The cutaneous manifestations described in children appear to be identical to those observed in adults, with the exception of phymatous rosacea which is only seen in the adult population.^{1,4} Hence, there are three subtypes of pediatric rosacea: vascular, papulopustular, and ocular. Other clinical forms such as granulomatous rosacea and pyoderma faciale have been reported in the pediatric population.¹ Ocular rosacea and papulopustular forms appear to be the most common clinical findings in younger patients.¹ Ocular symptoms must be systematically sought in every patient as they expose to serious complications such as ulceration or corneal perforation.^{2,4} In our patient, there were no pustules or signs of ocular involvement, and the diagnosis of vascular rosacea was made.

The diagnosis of pediatric rosacea is clinical, and biopsies are rarely performed.¹ Dermoscopy is a noninvasive tool

that is mainly used in the diagnosis of skin tumors.⁵ Its uses extend to hair and nail diseases, and infectious and inflammatory disorders.⁶ Dermoscopy can be very useful in the diagnosis of rosacea. Indeed, rosacea is characterized by a unique dermoscopic vascular pattern composed of linear and polygonal vessels.

The pathogenesis of rosacea remains unclear. Various factors are implicated including alteration of the innate immune response, vascular instability, and neurogenic inflammation.^{1,7} As in our patient, a family history of rosacea is sometimes reported in children with rosacea, which suggests a strong familial inheritance of the disorder.^{1,8} However, genetic mechanisms remain poorly understood.⁸

The treatment of pediatric rosacea is not consensual, but it appears to be very similar to treatment in adults. Trigger avoidance, sun protection, topical metronidazole, and age-appropriate oral antibiotics are the mainstay of management.^{1,2}

Although there are little data in the literature regarding the prognosis for pediatric rosacea, it appears to be a chronic disorder and tends to persist into adulthood.¹

ACKNOWLEDGMENTS

None.

CONFLICT OF INTEREST

None declared.

AUTHOR CONTRIBUTIONS

IC: drafted the manuscript and performed literature search.
NL: drafted the manuscript and performed literature search and dermoscopy interpretation. FZ: performed literature search and analysis, and critically revised the manuscript.

ETHICAL APPROVAL

Informed consent was obtained from all individuals included in this article.

DATA AVAILABILITY STATEMENT

All relevant information and data could be available upon a reasonable request from the corresponding author.

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REFERENCES

1. Kellen R, Silverberg NB. Pediatric rosacea. *Cutis*. 2016;98(1):49-53.
2. Kroshinsky D, Glick SA. Pediatric rosacea. *Dermatol Ther*. 2006;19:196-201.
3. Drolet B, Paller AS. Childhood rosacea. *Ped Dermatol*. 1992;9:22-26.
4. Léauté-Labrèze C, et al. Childhood rosacea. *Ann Dermatol Venereol*. 2007;134:788-792.
5. Litaïem N, Mansour Y, Jones M, Zeglaoui F. Dermoscopic signs of lichen planus. *BMJ Case Rep*. 2016;2016:bcr2015213923.
6. Chouk C, Litaïem N, Jones M, Zeglaoui F. Acne keloidalis nuchae: clinical and dermoscopic features. *BMJ Case Rep*. 2017;2017:2017-222222.
7. Awosika O, Oussedik E. Genetic predisposition to rosacea. *Dermatol Clin*. 2018;36(2):87-92.
8. Spöndlin J, Voegel JJ, Jick SS, Meier CR. A study on the epidemiology of rosacea in the U.K. *Br J Dermatol*. 2012;167(3):598-660.

How to cite this article: Chabchoub I, Litaïem N, Zeglaoui F. Pediatric rosacea in a patient with a dark phototype: Clinical and dermoscopic features. *Clin Case Rep*. 2020;8:3256–3258. <https://doi.org/10.1002/ccr3.3404>