CASE REPORT

Infant annular lichenoid dermatitis: A clinical case report

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ABSTRACT

Infant lichenoid annular dermatitis (ALDY) is a rare, benign, self-limiting inflammatory dermatosis that affects children and adolescents. It exhibits a chronic course with frequent recurrences. It is characterized by the appearance of well-defined, erythematous ring lesions, mainly on the trunk and extremities, with a lichenoid histological pattern. Its etiopathogenesis is not completely clear, although a T-cell-mediated immune response has been proposed. The diagnosis is clinical, complemented by histopathological studies that show a lichenoid infiltrate in the dermoepidermal junction with vacuolar degeneration of the basal layer. It was recently described in 2003, so we consider that the present work contributes to the little existing literature on the subject. We report the case of a 13-year-old male patient, with a history of atopy and the appearance of multiple annular lesions compatible with ALDY and a satisfactory result after treatment with topical corticosteroids.

INTRODUCTION

Lichenoid annular dermatitis of the infant is a rare, chronic and recurrent inflammatory entity of unknown etiology. An immunological reaction that would be mediated by cytotoxic T lymphocytes is postulated.[3] Triggers such as a personal history of allergic rhinitis, atopic dermatitis and celiac disease could play a fundamental role in this disease. In certain reports, its association with Borrelia infection is raised, but so far it has not been conclusive.[1,3,4,6,12] It manifests itself in the pediatric population with an average age of 11 years, although cases have also been reported in adults up to 79 years of age.[1,2,7,11] According to Vásquez-Osorio et al, there is a slight predominance of males, contrary to what Ramos and Quijano et al. mentioned, which affects both sexes equally.[3,15]

It is characterized by single or multiple annular lesions with defined borders, which vary according to the stage of development. They begin as macules with centrifugal growth to ring plaques with raised erythematous or brown edges and a hypopigmented center, with subsequent post-inflammatory hyperpigmentation in some cases. There may be slight peeling and itching. They predominate in the trunk, abdomen, inguinal region and extremities, and less frequently in the armpits, extremities and neck. Recurrence may occur in some cases.[1,7,11,13]

The differential diagnosis mainly includes the hypopigmented variant mycosis fungoides, other lichenoid dermatoses such as lichen planus, in addition to morphea and tinea corporis.[3,5,13] Biopsy is essential for diagnosis.

Histologically, it is characterized by a lichenoid pattern with massive necrosis of keratinocytes limited to the tips of the epidermal ridges and a lymphocytic infiltrate of the papillary dermis.[4,5,7,9] Immunohistochemical study reports lymphocyte infiltrate mainly of CD4+/CD45RO+ in the papillary dermis and intraepidermal CD8+.[3,7,12]

Treatment usually includes medium- to high-potency topical corticosteroids, although some more severe cases may require topical immunomodulators such as tacrolimus or pimecrolimus.[6,8,10,11] Phototherapy has been shown to be effective in most patients, although relapses are common after withdrawal of treatment.[1,4,5,11] In refractory cases, cyclosporine has been used.[14]

CASE REPORT

Masculino de 13 años, con antecedente personal de dermatitis atópica, rinitis alérgica y hallazgo incidental radiológico de nódulo calcificado en pulmón izquierdo. Presentó cuadro de 1 año de evolución con tres lesiones anulares levemente pruriginosas. Fue tratado en múltiples ocasiones con antimicótico tópico y oral durante 6 semanas por sospecha de dermatofitosis, sin resolución. Al examen físico evidenciamos una primera lesión correspondiente a una placa anular con bordes sobreelevados hipopigmentados con centro hiperpigmentado en región lumbar de 3x4 cm de tamaño respectivamente. La segunda lesión era una placa anular eritemato-violácea con leve descamación en pierna izquierda de 5x3 cm (Figura 1A).

La tercera lesión era una placa anular con bordes levemente elevados, eritemato-parduzco con centro hipopigmentado en cadera izquierda de 5x7cm (Figura 2). Dada la cronicidad del cuadro, se decidió realizar biopsia.

Los estudios histopatológicos reportaron acantosis con elongación de crestas interpapilares y estrato córneo con paraqueratosis y ortoqueratosis, intensa dermatitis de interfaz; la dermis presentó infiltrado perivascular superficial. Tinción PAS negativa (Figura 3). El laboratorio reportó PPD 5mm, resto de parámetros sin alteración. Con base en las características clínicas e histopatológicas se determinó una Dermatitis Anular Liquenoide del Infante. Se pautó tratamiento con corticoide tópico de moderada potencia (mometasona, 0.1% crema), en el cual se

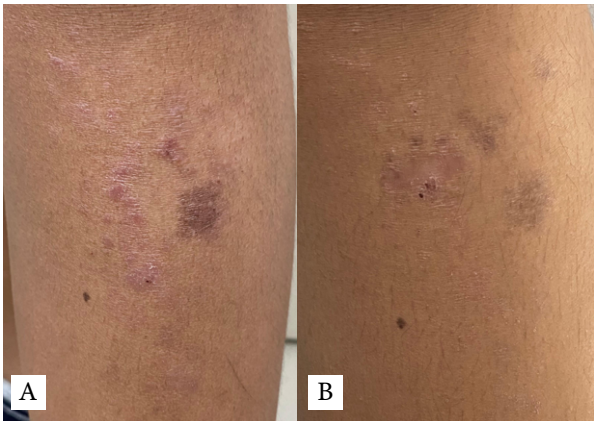

Figure 1: (A) Erythematous-purplish ring plate with central hypopigmentation of 5x3cm on the left leg. (B) Satisfactory evolution after 1 month.

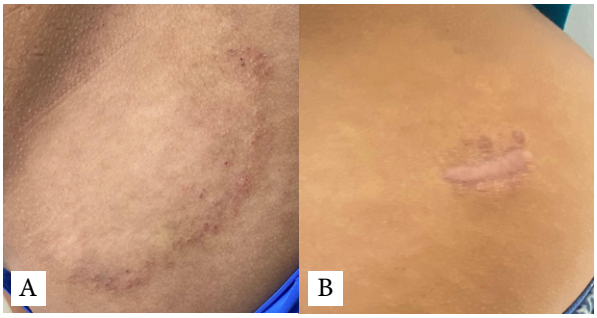

Figure 2: (A) Erythematous-brownish ring plate with raised borders and hypopigmented center. (B) Resolution at one month, post-biopsy scar.

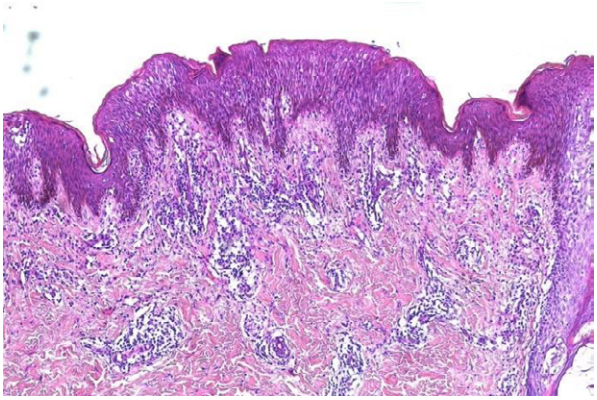

Figure 3: Acanthosis, hyperkeratosis, parakeratosis. Interface dermatitis. Superficial perivascular infiltrate in dermis.

observó una mejoría parcial de las lesiones a la segunda semana. (Figura 1B) por lo que se realizó cambio a corticoides tópicos de alta potencia (clobetasol, 0,1% crema), con resolución total de lesiones a la cuarta semana. Se refirió a neumología por nódulo de pulmón. Después de 4 meses, el paciente permaneció asintomático y se estableció control con nuestro servicio cada 2 meses.

DISCUSSION

Lichenoid annular dermatitis of the infant is a dermatosis recently described in 2003. It represents a diagnostic challenge, both clinical and histopathological, due to its similarity to other pathologies such as hypopigmented mycosis fungoides, centrifugal annular erythema, tinea corporis and morphea.

In our case, treatment with topical corticosteroids showed rapid improvement of lesions, with no relapse during the 3-month follow-up. This is consistent with the literature, where most cases show spontaneous resolution or with topical treatments within weeks or months (Table 1). The prognosis is generally favorable. The literature suggests that, although rare, it may be a chronic disease with periods of remission and exacerbation.

The case highlights the importance of considering ALDY in the differential diagnosis of annular skin lesions in the pediatric population, especially in the absence of response to conventional treatments. Although rare, proper recognition can prevent complications and improve the patient's quality of life.

CONCLUSION

Infant lichenoid annular dermatitis is a rare dermatological entity that, although benign, can generate diagnostic confusion due to its similarity to other annular dermatoses.

Table 1: Studies published since 2003 with their respective treatments.

REFERENCE	NUMBER OF CASES	THERAPY	REMISSION
Anessi	23	Topical corticosteroids (17)	Complete
		Systemic corticosteroids (1)	Complete
		Antibiotics (4)	No remission
		Sun Exposure (2)	Partial
		Phototherapy (2)	Complete
De La Torre	1	Topical corticosteroids	Complete
Durdu	1	Topical corticosteroids	Complete
Kleikamp	1	Topical corticosteroids and Tacrolimus	Complete
Cesinaro	3	Topical corticosteroids (2)	Complete
		Tacrolimus (1)	
Eh	1	Topical corticosteroids	Partial
Fabroni	1	Topical corticosteroids	Complete
Leger	1	Topical and systemic corticosteroids	Complete
Kazlouskaya	1	Topical corticosteroids	Completa
Di Mercurio	6	Topical corticosteroids (6)	Complete
		and Tacrolimus (2)	Complete
Osorio	2	-	Spontaneous remission
Ulkumen	1	Tacrolimus	Complete
Malakhowski	1	Topical corticosteroids and Pimecrolimus	Complete
Wilk	12	Topical corticosteroids (4)	Complete
		and antibiotics (2)	No remission
Cesinaro	1	Topical corticosteroids	Complete
Debois	1	Topical corticosteroids and Pimecrolimus	Complete
Sans	1	Topical corticosteroids	Complete
Mahmoudi	3	Topical corticosteroids and Tacrolimus (3)	Complete
Stojkovic-Filipovic	1	Cyclosporine	Complete

Early clinical recognition, supported by characteristic histopathological findings, is essential for its proper management. Our case highlights the importance of considering this pathology in the differential diagnosis of annular skin lesions in childhood, since it is an underdiagnosed disease.

Although the exact etiology remains uncertain, this report contributes to the limited knowledge base on its clinical and therapeutic behavior. Additional studies are needed to allow a better understanding of the disease and guide the development of more standardized treatment strategies.

INFORMED CONSENT

The patient included in this study and their representative have signed the informed consent, approving the use of their images and clinical data exclusively for research and scientific publication purposes. It is guaranteed that no personal data has been provided and no photographs have been used to allow identification.

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