PACR
Pediatric Academic Case Reports

3(1): 017-018; Feb 2024
Pediatric Academic Case Reports
DOI: 10.61107/pacr.2024.082

Letter to the Editor

Eosinophilic annular erythema secondary to pneumonia in a child

Çocukta pnömoniye sekonder eozinofilik annüler eritem

Ana Clara Maia Palhano, Arthur Macedo Goulart Silva, Alexandre Ozores Michalan, Fernanda Rytenband

University Of Santo Amaro, Dermatology, São Paulo, Brazil

Dear Editor,

Eosinophilic annular erythema (EAE) is a rare eosinophilic dermatosis characterized by disseminated annular and figurate urticarial plaques. Its etiology is still unknown, and the course of the disease is recurrent, with variable response to systemic treatment. Here, we aim to present a case of a one year and eight months old boy, hospitalized for 45 days due to necrotizing pneumonia with pleural effusion, presenting disseminated lesions that appeared five days before the prior dermatological evaluation. On the exam, annular lesions with a center tending to regression and raised erythematous borders were found, associated with disseminated polycyclic lesions on the face, limbs and predominantly on the thorax. The lesions did not form a target, had no pruritus associated and did not affect the palms, soles or mucous membranes (Figure 1). The patient had no systemic symptoms and had used Piperacillin and Tazobactam during hospitalization. When he presented the lesions, there was no laboratory alteration, such as blood eosinophilia. Histopathological exam presented lymphomononuclear and eosinophil infiltrate in the superficial and deep dermis, associated with flame figures and without mucin deposition, closing the diagnosis of eosinophilic annular erythema, probably secondary to the pulmonary infection, presenting great response after five days of corticosteroids. EAE is a rare eosinophilic dermatosis first described in the pediatric population and, since 2000, reported as well in adults. The clinic is characterized by recurrent urticarial and annular lesions with a tendency to centrifugal extension and central healing. The etiology is still unknown; however, it is suggested a hypersensitivity is a response due to an internal malignancy or a chronic condition like thyroid disease, diabetes mellitus, or infection, such as hepatitis B and C, borreliosis and *H. pylori* gastritis. Some patients might present blood eosinophilia, which was not observed in our case. There are several differential diagnoses, such as tinea corporis, granuloma annulare, deep for of erythema annulare centrifugum, erythema marginatum, erythema migrans, erythema gyratum repens, subacute cutaneous lupus erythematosus, and annular erythema of infancy. In such cases, the histological exam presenting superficial perivascular and interstitial mixed infiltrate with prominent eosinophils can be helpful. Flame figures may also be found. Its treatment might involve systemic corticosteroids, cyclosporine, methotrexate, dapsone, nicotinamide and antimalarial drugs; however, in some recalcitrant forms, the use of Dupilumab has been successfully reported. We highlight this rare entity since there are few cases described, such as the significance of the clinical presentation and hystopatological exam, and emphasize the significance of the appropriate treatment to avoid recurrences, which can be frequent.

Received: 08.05.2023 · **Accepted:** 01.06.2023 · **Published:** 28.02.2024

Correspondence / Yazışma: Ana Clara Maia Palhano · University Of Santo Amaro, Dermatology, São Paulo, Brazil · anaclaramaiapalhano@hotmail.com

Cite this article as: Maia Palhano AC, Goulart Silva AM, Ozores Michalan A, Rytenband F. Eosinophilic annular erythema secondary to pneumonia in a child. Pediatr Acad Case Rep. 2024;3(1):17-8.

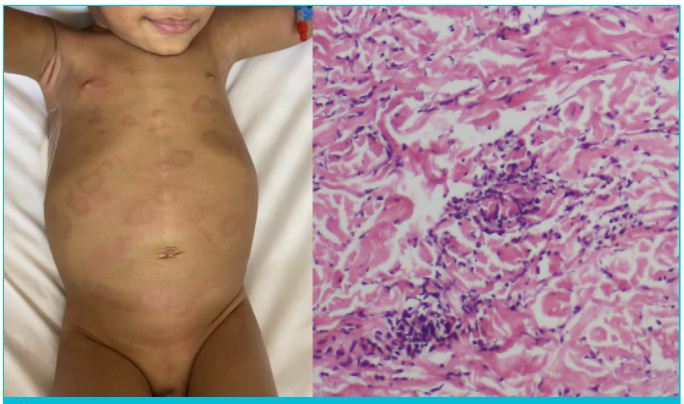

Figure 1. Eosinophilic annular erythema view

Patient Consent Form / Hasta Onam Formu

The parents' of this patient consent was obtained for this study.

Conflict of Interest / Çıkar Çatışması

The authors declared no conflicts of interest with respect to authorship and/or publication of the article.

Financial Disclosure / Finansal Destek

The authors received no financial support for the research and/or publication of this article.

REFERENCES

1. Dacy N, Oney K, Fiala K, et al. Eosinophilic annular erythema. *Baylor University Medical Center Proceedings* 2021; *34*(5): 606–7.
2. Heras MO, Muñoz NP, Sancho MI, et al. Eosinophilic annular erythema in adults: Report of two cases and review of the literature. *Anais Brasileiros De Dermatologia* 2017; *92*: 65–8.
3. Gray T, Lee J, Segars K, et al. Eosinophilic annular erythema: A striking clinical presentation with potential systemic implications. JAAD Case Reports 2021; 16: 33–6.
4. Eljazouly M, Chahboun F, Alj M, et al. (2022). Eosinophilic annular erythema: A new entity of eosinophilic dermatosis. Cureus 2022; 14(2): E22657.
5. Wallis L, Gilson RC, Gilson RT. (2017). Dapsone for recalcitrant eosinophilic annular erythema: A case report and literature review. *Dermatology and Therapy* 2017; *8*(1): 157–63.