Residência RP Pediátrica
Publicação Oficial da Sociedade Brasileira de Pediatria
ISSN-Online: 2236-6814

Submitted on: 06/09/2023
Approved on: 04/30/2025

INTERACTIVE CLINICAL CASE

Annular lesions in a pre-adolescent with leukemia

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INTRODUCTION

A 10-year-old girl has had progressively growing erythematous lesions on her face and anterior chest for 15 days, with no associated symptoms. She denies the use of topical medications, allergies, and family history of skin diseases. She has had acute lymphoblastic leukemia for 1 year and has been undergoing maintenance treatment with methotrexate and mercaptopurine for 5 months, as well as prophylaxis with acyclovir, azithromycin, and sulfamethoxazole with trimethoprim. She denies sporadic use of other medications or recent infection or vaccination. On physical examination, poorly delimited, smooth-surfaced, centrifugally growing annular erythematous plaques are noted on the anterior chest (figure 1) and on the frontotemporal and bilateral malar regions (figure 2), with the largest measuring 10 cm in diameter.

1. What is the main diagnostic hypothesis?

a) Leprosy



Figure 1. Erythematous and annular plaques in the anterior thorax.

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DOI: 10.25060/residpediatr-2025.v15n3-1122

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Figure 2. Erythematous and annular plaques in the left frontotemporal region.

b) Figurate erythema
c) Granuloma annulare
d) Cutaneous lupus

There were no alterations in the laboratory tests. The histopathological examination showed superficial and deep perivascular dermatitis, with a "cuff" infiltrate (figure 3). The lesions regressed spontaneously over the course of a month, with no recurrence to date.

2. Based on the results of the complementary tests, what is the diagnosis?

a) Erythema migrans
b) Erythema gyratum repens
c) Erythema annulare centrifugum
d) Erythema marginatum

Erythema annulare centrifugum (EAC) is a rare inflammatory dermatosis of uncertain etiology and variable associations[1]. The clinical manifestation consists of erythematous, annular or polycyclic plaques and may be scaling or pruritus. It reaches diameters

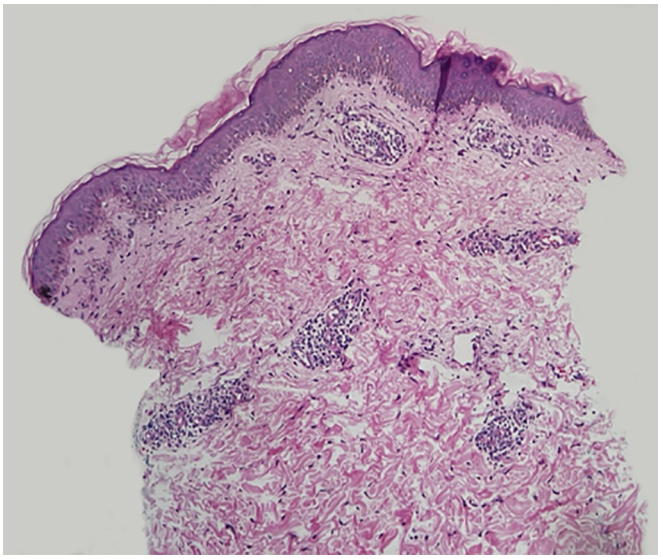


Figure 3. Lymphocyte infiltrate around superficial vessels and the reticular dermis filling the entire perivascular adventitial dermis ("cuff" infiltrate). H&E, objX10.

greater than 6 cm and presents with central healing and centrifugal growth, with a predilection for the trunk and extremities[2].

3. Which group of neoplasms is described in association with the cutaneous picture?

a) Hematological
b) Gastrointestinal
c) Pulmonary
d) Neurological

EAC has been reported as a facultative paraneoplastic dermatosis, associated with hematologic malignancies such as leukemia and lymphoma[3,4]. It is believed that the case in question may have been triggered by acute lymphocytic leukemia, since other possible etiologies – infectious, autoimmune, vaccine and drug-related – have been ruled out.

Answers:
1 - B
2 - C
3 - A

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