The Role of Dermatology in the Diagnosis of the 'Great Imitators' in Medicine

O Papel da Dermatologia no Diagnóstico das Doenças Denominadas 'Grandes Imitadoras' em Medicina

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Palavras-chave: Doenças da Pele/diagnóstico; Pele/patologia; Sarcoidose/diagnóstico

The 'great imitator' is a term used to describe medical conditions featuring diverse manifestations. In dermatology. These imitators might be viral exanthems or uncommon diseases such as cutaneous lymphomas. The best examples are the three ancient infectious diseases — syphilis, tuberculosis, and leprosy — which have long been considered the classic imitators in medicine.[1] In addition to infections, some inflammatory diseases may present nonspecific cutaneous manifestations that mimic several other diseases.

A 47-year-old male patient presented to our dermatology clinic with a disseminated, polymorphic, and pruritic dermatosis characterized by three annular, infiltrated patches with an elevated border on both hands (Figs. 1A and B) and multiple left forearm confluent erythematous papules and plaques with scales with a well-defined, rounded border on the trunk (Fig. 1C). Additionally, the patient reported dysphonia and progressive dyspnea for the past 12 months. We considered the following diagnostic hypotheses: primary cutaneous T-cell lymphoma, a cutaneous manifestation of a systemic lymphoproliferative disease, secondary syphilis, sarcoidosis, and, with a low likelihood, generalized granuloma annulare.

The blood tests revealed no changes apart from a high level of angiotensin-converting enzyme (148 U/l). Infectious serologies were negative. A skin biopsy of an annular skin lesion revealed superficial and deep infiltrate of the dermis with epithelioid cells, lymphocytes, and multinucleate giant cells (Fig. 1D). The microbiologic examination of the skin biopsy was negative. Thoracic computed tomography (CT) showed partial obliteration of the upper airway, including subglottic and tracheal invasion, without lung abnormalities. The patient was diagnosed with systemic sarcoidosis and referred to a pulmonology clinic. The treatment consisted of clobetasol propionate cream 1%, prednisolone 10 mg/day, hydroxychloroquine 400 mg/day, methotrexate 20 mg/week, and infliximab 3 mg/kg every four weeks. The patient maintains follow-up in dermatology and pulmonology clinics.

Sarcoidosis is one of the 'great imitators' in medicine.[2] It is a non-infectious multisystem granulomatous disorder of unknown etiology that predominantly affects the lungs,

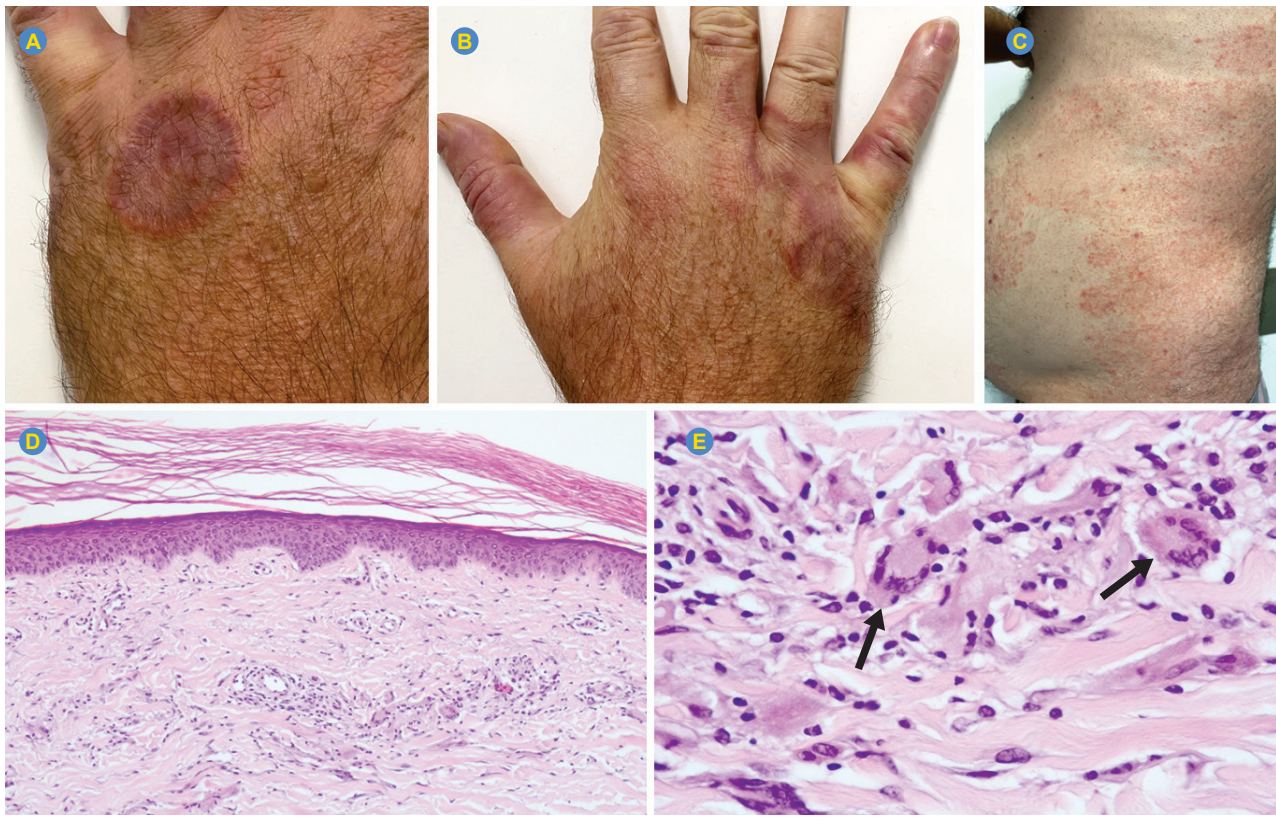

Figure 1 – Clinical images – (A) and (B) annular patches with elevated borders in the dorsum of the left and right hand; (C) multiple confluent erythematous papules and plaques with a rounded border on the trunk. Skin biopsy (D) – H&E 100x superficial and deep infiltrate of the dermis with epithelioid cells, multinucleated giant cells, and lymphocytes; a slight increase in interstitial mucin (E) (H&E 400x) multinucleated giant cells (arrows).

but the skin is the second most frequently involved organ.[3] Cutaneous sarcoidosis is usually an early manifestation of the disease, prompting the need to look for systemic involvement.[2] The skin is a convenient source for histological diagnosis.[3] Naked sarcoidal granulomas are the characteristic histologic finding in sarcoidosis.[4] In our case, the skin biopsy alone was consistent with sarcoidosis or granuloma annulare. However, the clinicopathological correlation was essential to reach a definitive diagnosis. In addition to being one of the great clinical mimickers of many different cutaneous disorders, sarcoidosis may histologically mimic other conditions.[4] The dermatologist is often the first to consider a diagnosis of sarcoidosis, because, on average, 25 % of sarcoidosis cases have cutaneous involvement.[5] Sarcoidosis is a diagnosis of exclusion that relies on epidemiological, clinical, radiographic, and laboratory criteria.[2] Dermatologists and other physicians should be encouraged to become actively involved in the multisystemic evaluations of patients, providing early recognition of cutaneous sarcoidosis, and protecting patients from multisystemic complications.

AUTHOR CONTRIBUTIONS

DM: Study design and writing of the manuscript.
PV, LSA: Writing and critical review of the manuscript.
All authors approved the final version to be published.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

PATIENT CONSENT

Obtained.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

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REFERENCES

1. Karadağ AS, Chen WC. Great imitators in dermatology: part I. Clin Dermatol. 2019;37:173-4.
2. Fernandez-Faith E, McDonnell J. Cutaneous sarcoidosis: differential diagnosis. Clin Dermatol. 2007;25:276-87.
3. Caplan A, Rosenbach M, Imadojemu S. Cutaneous sarcoidosis. Semin Respir Crit Care Med. 2020;41:689-99.
4. Ball NJ, Kho GT, Martinka M. The histologic spectrum of cutaneous sarcoidosis: a study of twenty-eight cases. J Cutan Pathol. 2004;31:160-8.
5. Mangas C, Fernández-Figueras MT, Fité E, Fernández-Chico N, Sàbat M, Ferrándiz C. Clinical spectrum and histological analysis of 32 cases of specific cutaneous sarcoidosis. J Cutan Pathol. 2006;33:772-7.

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