5TH WORLD CONGRESS OF CUTANEOUS LYMPHOMAS
Focus area: Quality of Life/Patient-Reported Outcomes
Abstract n 161

Unexpected evolution with psoriasis and atopic dermatitis treatments: the need to consider a lymphoma

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INTRODUCTION

The growing use of biologic and small molecules treatments for immunomediated diseases, mainly psoriasis (PSO) and atopic dermatitis (AD), has reopened the discussion about a possible increased risk of developing and aggravating non-Hodgkin lymphoma (NHL) with this emerging drugs. We report large cell and high-grade transformation of mycosis fungoides (MF) in two patients who received an anti-TNF drug because of a psoriasis misdiagnosis.

CASES REPORT

Case 1: A 43-year-old woman presented for evaluation of a 4-year history of erythematous plaques distributed on her trunk and extremities. She had a presumed diagnosis of psoriasis and received Etanercept (anti-TNF-α) for 2 months. The lesions started expanding into multiple sizes ulcerated and exudative tumors (Fig 1).
Suspecting of an undiagnosed mycosis fungoides transformed with the anti-TNF drug, we proceed to a histopathologic evaluation, which revealed a high grade NHL with immunophenotype T CD3 and CD4 positive and CD30 and CD56 negative. The neoplastic infiltrate occupied predominantly the upper and middle strata of the dermis with ulceration.
Case 2: A 41-year-old man presented with a 3-year history of erythematous plaques distributed on his trunk, scalp and limbs. He had na external presumed diagnosis of psoriasis and received a course of 6 months treatment with adalimumab (anti-TNF-α) and secukinumab (anti-IL17) for 3 months, with progression of lesions, evolving even with alopecia (Fig 2). Our histopathological and immunohistochemical exam confirmed a MF diagnosis.
Both patients, unfortunately, died due to refractory sepsis (Fig 3).

Figure 1: Patient presenting plaques and tumors distributed on scalp, trunk and limbs.

Figure 2: Patient presenting scaly plaques and few exulcerated lesions soon after stopping biologic treatment.

Figure 3: Patient with exulcerated plaques and sepsis

DISCUSSION

MF is a cutaneous T-cell lymphoma that typically presents as erythematous patches located mainly on sun-protected areas, progressing to indurated plaques, tumors or erythroderma. The diagnosis may be difficult at the initial presentation, given its overlap with some inflammatory diseases, such as eczema or psoriasis. Therefore, clinical evaluation combined with histopathological exam are primordial, mainly in those patients that do not respond or even aggravate their condition under treatment regimens.
Biologic drugs have been widely used against various chronic inflammatory dermatoses, including PSO with high efficacy. However, it is clear that blocking TNF-α is immunosuppressive, mainly regarding its potential to induce and aggravate malignancies, such as NHL.
Regarding AD, IL-4, IL-13 and activation of JAKs and STATs are essential for tumoral microenvironment and also in disease progression. Based on more recente publications, dupilumab and ruxolitinib are related to lymphoma progression in most of the cases.
Dermatologists should be concerned when prescribing these new and emerging therapies. Atypical presentation of common inflammatory diseases, unexpected evolution such as lesions ulceration, tumor development and plaques widespread, should Always raise the question about the precise diagnostic and multiple biopsies is recommended for confirmation, with special importance to clinical and histopathological / immunohistochemical correlation.

BIBLIOGRAPHY

1. Adams AE, Zwicker J, Curiel C, Kadin ME, Falchuk KR, Drews R, et al. Aggressive cutaneous T-cell lymphomas after TNFalpha blockade. J Am Acad Dermatol. 2004;51(4):660-2.
2. Koens L, Senff NJ, Vermeer MH, Ronday HK, Willemze R, Jansen PM. Cutaneous gamma/delta T-cell lymphoma during treatment with etanercept for rheumatoid arthritis. Acta Derm Venereol. 2009;89(6):653-4.
3. Lourari S, Prey S, Livideanu C, Jamard B, Lamant L, Cantagrel A, et al. Cutaneous T-cell lymphoma following treatment of rheumatoid arthritis with tumour necrosis factor-alpha blocking agents: two cases. J Eur Acad Dermatol Venereol. 23. England2009. p. 967-8.
4. Ma H, Qiu S, Lu R, Feng P, Lu C. Methotrexate and etanercept-induced primary cutaneous CD4 positive small/medium-sized pleomorphic T-cell lymphoma. An Bras Dermatol. 2016;91(3):368-71.
5. Nikolaou V, Papadavid E, Economidi A, Marinos L, Moustou E, Karampidou K, et al. Mycosis fungoides in the era of antitumour necrosis factor-alpha treatments. Br J Dermatol. 2015;173(2):590-3.
6. Sanli H, Ataman S, Akay BN, Yilmaz A, Yildizlar D, Gurgey E. Mycosis fungoides in a patient with ankylosing spondylitis during infliximab therapy. J Drugs Dermatol. 2007;6(8):834-6.
7. Schmidt A, Robbins J, Zic J. Transformed mycosis fungoides developing after treatment with alefacept. J Am Acad Dermatol. 53. United States2005. p. 355-6.
8. Kolkowski K, Trzeciak M, Sokołowska-Wojdyło M. Safety and Danger Considerations of Novel Treatments for Atopic Dermatitis in Context of Primary Cutaneous Lymphomas. Int J Mol Sci. 2021 Dec 13;22(24):13388.
9. Diakomopoulos A, Dalamaga M, Papadavid E. Understanding the enigmatic association between mycosis fungoides and psoriasis: Report of two cases and review of the literature. Metabol Open. 2021 Nov 4;12:100148.
10. Davis MS, Spencer RK, Johnson CE, Elhage KG, Jin JQ, Hakimi M, Bhutani T, Liao W. Risk of Cutaneous T Cell Lymphoma with Psoriasis Biologic Therapies. Dermatol Ther (Heidelb). 2024 Jan;14(1):15-30.
11. Nakazaki K, Yoshida M, Masamoto Y, Shinozaki-Ushiku A, Ikemura M, Hisamoto T, Yasunaga M, Sato S, Kurokawa M. Discordant lymphomas of classic Hodgkin lymphoma and peripheral T-cell lymphoma following dupilumab treatment for atopic dermatitis. Int J Hematol. 2022 Sep;116(3):446-452.