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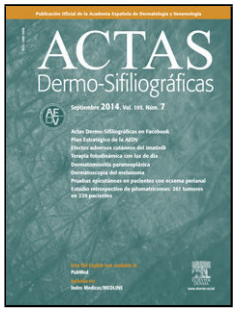

FR- Terapia de células T con receptores quiméricos de antígenos (CAR-T) en dermatología

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Foro de Residentes

FR- Terapia de células T con receptores quiméricos de antígenos (CAR-T) en dermatología

[[Translated article]]RF- Chimeric antigen receptor T (CAR-T) cell therapy in dermatology

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Palabras clave: Terapia CAR-T; Inmunoterapia; Oncología dermatológica; Enfermedades autoinmunes; Efectos adversos cutáneos

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The development of chimeric antigen receptor T-cell (CAR-T) therapies is revolutionizing the treatment of hematological malignancies. At the same time, their utility is being investigated in other cancers and autoimmune diseases[1] where dermatologists play a fundamental role.

CAR-T cells are autologous T cells transduced with a chimeric receptor targeted against an antigen. T cells are collected from the patient via peripheral blood apheresis and using a viral vector are transduced with a gene that targets a tumor antigen. Afterwards, the patient receives lymphodepleting chemotherapy, and CAR-T cells are infused; these cells are expected to engraft and expand. CD19-targeted CAR-T cells have demonstrated efficacy in the treatment of B-cell hematological neoplasms.[2] Specific toxicities have been reported, such as cytokine release syndrome (CRS), immune effector cell-associated neurotoxicity syndrome (ICANS), and hematological toxicity. Furthermore, the use of allogeneic CAR-T and CAR-NK cells is also being studied.[3]

Cutaneous lymphomas often exhibit a less aggressive behavior, allowing for local therapies. However, their management in advanced cases (generally T-cell lymphomas) is complex. Unfortunately, CAR-T cells have not been successfully developed for T-cell malignancies due to similarities between healthy and tumor T cells, which lead to the potential development of T-cell aplasia or contamination of the product (obtaining CAR-T cells that include tumor cells).[4] As for melanoma, despite being a significant area of research, only the results of one clinical trial have been published. It included 3 patients refractory to, at least, 2 lines of immunotherapy who received CAR-T cells targeting the oncogene MET. All discontinued treatment due to progression.[5] Other tumor targets are being investigated, such as tyrosinase-related protein 1 (TRP1), which has shown antitumor activity in mice and patient-derived preclinical models.[6]

Beyond oncology, this therapy is emerging as a promise in autoimmune diseases. A recent article has been published on patients with severe systemic lupus erythematosus (SLE; n = 8), idiopathic inflammatory myositis (IIM; n = 3), and systemic sclerosis (SSc; n = 4) all treated with CD19-targeted CAR-T cells. All had cutaneous involvement except for 2 patients with IIM. At 6 months, complete remission was achieved in all patients with SLE or IIM, and a reduction in pulmonary and cutaneous activity was reported in patients with SSc. All remained stable during follow-up (median, 15 months, range, 4-29), without other immunosuppressive treatments. Remission of pathological autoantibodies was observed, even after complete B-cell reconstitution, supporting the idea that CAR-T cells may induce an immunological reset, leading to long-term sustained remission.[1]

Cutaneous adverse effects with this therapy appear in 4%-36% of patients, depending on the consulted series. Most consist of mild/moderate maculopapular rashes. However, bullous and petechial eruptions have been reported, and some patients require systemic treatment. Their etiopathogenesis is uncertain, possibly linked to CRS or cross-reactivity with cutaneous antigens similar to the CAR-T target, though their prognostic implication has not yet been studied.[2]

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JT N Engl J Med

V 390

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DOI 10.1056/NEJMoa2308917

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JT Nat Med

V 30

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