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Letters to the Editor / Cartas al Editor

EXTRACORPOREAL PHOTOAFERESIS FOR THE TREATMENT OF CD4+ T LYMPHOCYTES MEDIATED RENAL DISEASES.

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To the Editor:

Extracorporeal photoapheresis (ECP) is a form of apheresis-based immunomodulatory therapy which is currently used in many different clinical settings such as cutaneous T-cell lymphoma, graft-versus-host disease, rheumatic diseases, pemphigus vulgaris, and acute allograft rejection treatment in cardiac, lung, liver, and kidney transplant[1].

During ECP mononuclear leucocytes are separated from whole blood using centrifugation. A photosensitizing agent (8 metoxipsoralen) is added and the white cells are then irradiated with ultraviolet light A before being returned to the patient. The key mechanism of this ECP is induction of leukocyte apoptosis. After reinfusion to the patient, the apoptotic white cells are engulfed by antigen-presenting cells triggering a T citotoxic induced autoimmunity effect against T pathologic lymphocytes, what have been called "auto-vaccination theory", and a T cell regulatory effect that induce tolerance to pathologic cells, contributing in this case to the receptor graft tolerance[1-4].

At the best of our knowledge there are few articles reporting the use of ECP in renal diseases, most of them as adjuvant treatment for handling refractory acute kidney rejection, and only one for treating nephrotic syndrome. All of them reported good results with a non toxic, well tolerated, and non immunosuppressive (but immunomodulatory) treatment[5-11].

However, since T lynphocytes, target of this treatrment, are involved in many renal pathophysiology mechanisms of renal diseases beyond graft rejection and nephrotic syndrome, as is the case of proliferative glomerulopathies (crescent glomerulonephritis) and interstitial nephritis of diverse etiologies[12-13].

In conclusion, we postulate that perhaps extracorporeal photoapheresis could be an interesting therapeutic alternative for handling refractory CD4+ T lymphocytes mediated nephropathies.

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