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Anti-Angiotensin Type 1 Receptor Antibodies in Chronic Graft-Versus-Host Disease.

Chiron A[1], Bouaziz JD, Carmagnat M, de Latour RP, Lafaurie-Bergeron A, Robin M, Xhaard A, Toubert A, Charron D, Guigue N, Socié G, Bengoufa D.

Author information

- [1]1 Université Paris Diderot, Sorbonne Paris Cité; AP-HP; Hôpital Saint Louis, Paris, France. 2 Laboratoire d'Immunologie et d'Histocompatibilité, Hôpital Saint-Louis, Paris, France. 3 Service de Dermatologie, Hôpital Saint-Louis, Paris, France. 4 Laboratoire d'Immunologie, Dermatologie et Oncologie, Hôpital Saint-Louis, INSERM U976, Paris, France. 5 Service d'Hématologie-Greffe, Hôpital Saint-Louis, Paris, France. 6 Service de Pneumologie, Hôpital Saint-Louis, Paris, France. 7 INSERM U1160, Paris, France. 8 INSERM UMRS 940, Paris, France. 9 Laboratoire de Parasitologie, Hôpital Saint-Louis, Paris, France. 10 Address correspondence to: Andrada Chiron, M.D., Laboratoire d'Immunologie et d'Histocompatibilité. Hôpital Saint-Louis. 1 avenue Claude Vellefaux. 75010 Paris, France. 11 Address correspondence to: Gerard Socié, M.D., Ph.D., Service d'Hématologie-Greffe, Hôpital Saint-Louis, 1 avenue Claude Vellefaux, 75010 Paris, France.

Abstract

BACKGROUND: Activating anti-angiotensin type 1 receptor antibodies (AT1R-AA) have been described in patients with systemic scleroderma, an auto-immune disorder with clinical fibrotic features. Chronic graft-versus-host disease (cGvHD) after hematopoietic stem cell transplantation may have clinical fibrotic features, whose pathogenesis may be similar with systemic sclerosis.

OBJECTIVE: To evaluate the presence of AT1R-AA and their association with clinical and biological symptoms in cGvHD patients.

MATERIAL AND METHODS: Sera from 87 patients including 45 extensive cGvHD and 42 hematopoietic stem cell transplantation patients without cGvHD were retrospectively analyzed for the presence of AT1R-AA using an enzymatic immunoassay.

RESULTS: The frequency of AT1R-AA was significantly increased (odds ratio [OR]=3.4, P=0.04) in the cGvHD group (24.4%) compared with the non-cGvHD group (7.1%). In the cGvHD group the positivity of AT1R-AA was significantly associated with: i/ the presence of antinuclear antibodies (OR=5.9, P=0.04) ii/ a more severe global and organ-specific cGvHD scoring (P<0.05), iii/ the presence of active skin or mucosal erosions (OR=19.2, P<0.01). There was no difference between the number and the types of organs involved by the cGvHD between the AT1R-AA-positive versus AT1R-AA-negative subgroups.

CONCLUSION: This preliminary study suggests a potential role and prognostic value of AT1R-AA in cGvHD.