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Role of angiotensin II type 1 receptor-activating antibodies in solid organ transplantation.

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Source

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Abstract

Angiotensin type I receptor (AT₁R) mediates physiologic and pathophysiologic actions of its ligand, angiotensin II. Overactivity of the AT₁R and angiotensin II interaction results in hypertension and vascular remodeling. Antibodies to AT₁R have been implicated in several vascular pathologies. In renal transplantation, elevated levels of anti-AT₁R antibodies have been associated with antibody mediated rejection (AMR) in the absence of donor HLA specific antibodies. In heart transplantation, increased levels of anti-AT₁R antibodies have been associated with cellular and AMR as well as an early onset of microvasculopathy. This review summarizes the current investigations regarding the impact of anti-AT₁R antibodies in solid organ transplantation and provides insight into the humoral response in the presence of non-HLA and HLA specific antibodies.

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