Interleukin-6 Antagonists for the Management of Hypertension

To the Editor:

I read with great interest the recent article published by Luther et al in the December 2006 issue of Hypertension, which focused on how angiotensin II induces interleukin (IL)-6 in humans. The authors suggest that angiotensin II performs this function through a mineralocorticoid receptor–dependent mechanism.

I would like to suggest the possible future role of IL-6 antagonists in the control and treatment of recalcitrant hypertension. Abnormal IL-6 levels have been noted in almost all types of inflammatory disorders. Abnormal IL-6 production has also been noted in acute coronary syndromes and a number of malignancies, such as multiple myeloma. It is widely believed that IL-6 may have a major role to play in the pathogenesis of almost all inflammatory disorders in the body.

Manfredini et al reported the development of an IL-6 peptide antagonist that was shown to reduce IL-6 activity in vitro. Another molecule that is currently being studied is tocilizumab. Tocilizumab is an antihuman IL-6 receptor antibody of the IgG1 subclass currently used primarily in the treatment of rheumatoid arthritis. It binds to both the soluble and the membrane-bound forms of IL-6 receptors, thus markedly reducing binding of IL-6 to its receptors and, thus, reducing its proinflammatory function.

Molecules such as tocilizumab have shown considerable promise as IL-6 antagonists and may play a vital role in management of recalcitrant hypertension in the near future.

Disclosures

None.

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