# Role of the renin-angiotensin system in the biosynthesis of aldosterone

Aguilera, Greti

Marusic, Elisa T.

Acute infusions of angiotensin II or dog renin into hypophysectomized nephrectomized dogs has no effect on the conversion of corticosterone to aldosterone. This conversion was measured in an isolated mitochondrial fraction obtained from glands excised immediately after the infusion was over.In dogs injected for 4 days with homologous renin, the conversion of corticosterone to aldosterone was significantly increased. This increase resembles that seen in dogs fed with a low sodium diet, which also increases renin secretion. In dogs hypophysectomized the day before starting the renin injections, there was also a significant increase on the conversion of corticosterone to aldosterone.These data suggest that the increased conversion of corticosterone to aldosterone in the sodium deficient animals, is regulated by the renin-angiotensin system. The data also suggests that there is a double effect of angiotensin in the aldosterone biosynthetic pathway: one in ?acute? conditions, increasing the