

J.M.KRZESINSKI, L.CHRISTIAENS*, M.PALEM-VLIERS,
D.FENGHE, M.L.PEQUEUX-BAR, M.R.LOMBA-PIGNON, P.GENARD
G.RORIVE.

Services de Néphrologie et de Chimie*, C.H.U. LIEGE.

Arguments for the existence of an endogenous inhibitor of the renal Na-K ATPase enzyme with steroid structure and natriuretic action.

In order to explain the opposite effect of 6,7-dihydroxylated isomers of 6,7-dihydrocanrenone on the urinary sodium and potassium excretion, we have tested the effect of these substances isolated from human urine on the Na⁺-K⁺ pump from different tissue preparations: rabbit kidney slices as well as Na-K ATPase purified from kidney.

Our results show an inhibition of pump as well as enzyme activity by the 6 β 7 α isomer while the two other isomers are either ineffective or slightly stimulating. The 6 β 7 α dihydroxy- 6,7-dihydrocanrenone could be one of the plasma ouabain-like substance incriminated in the pathogenesis of volume-expanded hypertension.