

Contents

Preface V

Embryology of the endocrine heart
Thompson, R.P., J. Göbel, J.R. Lindroth and M.G. Currie 1

Morphological review: immunohistochemistry and ultrastructure of the endocrine heart
Forssmann, W.G. 13

Evidence for the existence of cardiac hormones in the conductive system of the mammalian heart
Göbel, J., H. Back, K. Forssmann, C. Daffner, W.E. Stumpf
and W.G. Forssmann 43

Catecholamine-containing granules in cardiac chromaffin cells as compared with atrial granules
Scheuermann, D.W. 51

Seasonal changes of the endocrine heart
Aoki, A., C.A. Maldonado and W.G. Forssmann 61

Storage and secretion of atrial natriuretic peptide (ANP) by cultured atrial and ventricular cells from the neonatal rat
Brand, T., H. Jockusch, G. Rippegather and W.G. Forssmann 69

Combined quantitative morphological and biochemical study on atrial granules (AG)
Herbst, W.M., G. Mall, J. Weers, T. Mattfeldt, R.E. Lange
and W.G. Forssmann 75

Immunohistochemical evidence for a neurosecretory and neurotransmitter function of CDD/ANP-immunoreactive neurons in molluscs
Reinecke, M., H. Back, P. Jacobs and R. Schipp 83

Dual distribution of cardiac hormones (CDD/ANP) in heart and brain of vertebrates
Reinecke, M., D. Betzler, H. Segner and W.G. Forssmann 87

Steroid hormones and the endocrine heart
Stumpf, W.E., H. Back and W.G. Forssmann 95

Biochemistry of cardiac hormones
Hock, D. 103

The physiological importance of Atrial Natriuretic Peptide
Schnermann, J., J.P. Briggs 113

Pharmacology of the cardiac endocrine system

Currie, M.G., C.E. Loffon, H. Schomer, W.H. Newman, R.W. Wrenn,
W.F. Oehlenschläger 123

Sites of action of ANF as a circulating hormone

Gutkowska, J. 133

Pathomorphology of the endocrine heart

Rippegather, G. 145

Endocrine heart in experimental cardiomyopathy

Riegger, A.J.G., D. Elsner, F. Muders, E. Pascher and E.P. Kromer 153

Atrial natriuretic peptide in man

Weidmann, P., H. Saxenhofer, C. Ferrier and S.G. Shaw 161

The behaviour of CDD (cardiodilatin) during graded exercise on a bicycle ergometre

Feuerbach, U., K. Völker, H. Bittner, W.G. Forssmann, W. Hollmann 187

Plasma concentrations of atrial natriuretic peptide (α -h-ANP 1-28) during exercise and relationship to hemodynamic parameters in man

Talartschik, J., K.H. Scholz, T. Eisenhauer and K.L. Neuhaus 191

Plasma atrial natriuretic factor responses to opiates

Vollmar, A.M., R.M. Arendt and R. Schulz 199

Atrial natriuretic peptide in term newborn infants

Timnik, A., J. Weil, M. Brügmann, T. Strom, M. Haufe, J.M. Heim
and R. Gerzer 205

Effect of ANP bolus injection on endocrine and renal regulation in patients with liver cirrhosis and ascites

Brabant, G., H. Stegner, A. Lueg, D. Stolze, R. Brunkhorst, F.W. Schmidt
and R.D. Hesch 211

Atrial natriuretic peptide (α -h-ANP) in 157 children with congenital heart diseases

Eisenhauer, T., J. Talartschik and G. Eigster 219

Receptor binding of cardiac hormones to dog kidney with congestive heart failure

Gagelmann, M., K. Forssmann, A. Whalley, G.A.J. Riegger
and W.G. Forssmann 225

Characterization of the ANF system in patients with cirrhosis of the liver

Gerbes, A.L., R.M. Arendt, E. Stangl, V. Gülberg, T. Sauerbruch, D. Jüngst
and G. Paumgartner 229

The effect of human atrial natriuretic peptide on renal and cardiovascular responses to insulin-induced hypoglycemia in healthy man

Jungmann, E., C. Konzok, E. Höll, W. Fassbinder and K. Schöffling 235