6. Schriftenverzeichnis

[1] World Health Organisation-International Society of Hypertension: Guidelines for the Management of Hypertension. J Hypertens 1999;17:151-183.

[2] Kannel WB. Assessment of hypertension as predictor of cardiovascular disease–The Framingham Study. In: Hypertension–in Nature and Treatment. CIBA, Horsham, England (1975) pp. 68-86.

[3] Klag MJ, Whelton PK, Randall BL, et al. End-stage renal disease in African-American and white men. 16-year MRFIT findings. JAMA 1997;277:1293-8.

[4] Bright R.Tabular view of morbid appearance in 100 cases connected with albuminous urine. Guy´s Hosp Rep 1836;1:380-410.

[5] Guyton AC, Coleman TG, Cowley AVJ, et al. Arterial pressure regulation. Overriding dominance of the kidneys in long-term regulation and in hypertension. Am.J Med 1972;52: 584-594.

[6] Hall JE, Guyton CA, Brands W. Pressure-volume regulation in hypertension. Kidney Int 1996;49(Suppl. 55):35-41.

[7] Hall JE, Mizelle HL, Hildebrandt DA, Brands MW. Abnormal pressure natriuresis: A cause or a consequence of hypertension? Hypertension 1990;15:547-559.

[8] Cowley AW Jr. Long-term control of arterial blood pressure. Physiol Rev 1992;72:231-300.

[9] Roman RJ. Pressure diuresis mechanism in the control of renal function and arterial pressure. Hypertension 1992;19(Suppl I):19-117.

[10] Guyton AC. Renal function curve: a key to understand the pathogenesis of hypertension. Hypertension 1987;10:1-6.

[11] Guyton AC: Arterial pressure and Hypertension. Philadelphia, 1980.

[12] Bianchi G, Fox U, DiFrancesco GF, et. al. Blood-pressure changes produced by kidney cross-transplantation between spontaneously hypertensive and normotensiv rats. Clin Sci Mol Med 1974;47:435-8.

[13] Rettig R, Folberth C, Stauss H, et al. Role of the kidney in primary hypertension: a renal transplantation study in rats. Am J Physiol 1990;258:F606-11.

[14] Patschan O, Kuttler B, Heeman U, et al. Kidneys from normotensiv donors lower blood pressure in young transplanted spontaneously hypertensive rats. Am J Physiol 1997;273:R175-80.

[15] Guidi E, Bianchi G, Rivolta E, et al. Hypertension in men with a kidney transplant: role of familial versus other factors. Nephron 1985; 41:14-21.

[16] Curtis JJ, Luke RG, Dustan HP, et al. Remission of essential hypertension after renal transplantation. N Engl J Med 1983;309:1009-14.

[17] Fettermann GH, Habib R. Congenital bilateral oligonephronic reanl hypoplasia with hypertrophy of nephrons (oligomeganephronia). Am J Clin Pathol 1969;52:199-207.

[18] McGraw M, Poucell S, Sweet J, Baumal R. The significance of fokal segmentalglomerulosclerosis in oligomegonephronia. Int J Ped Nephrol 1984;5:67-72.

[19] Liebermann E. Essential hypertension in children and youth: A pedriatric perspective. J Pedr 1974;85:1-11.

[20] Mei-Zahav MWF, Korzets Z, Cohen I, Kessler O, et al. Ambulantory blood pressure monitoring in children with a solitary kidney: a comparison between unilateral renal agenesis and uninephrectomy. Blood pressure Monit 2001;6:263.

[21] Brenner BM, Garcia DL, Andersen S. Glomeruli and blood pressure. Less of one, more the other? Am J Hypertens 1988;1:335-47.

[22] Woods LL, Neonatal uninephrectomie causes hypertension in adult rats. Am J Physiol 1999; 276:R974-R978.

[23] Moritz KM, Wintour EM, Dodic M. Fetal uninephrectomy leads to postnatal hypertension and compromised renal function. Hypertension 2002;39:1071-1076.

[24] Keller GK, Zimmer GZ, Buzello MWF, et al. Nephron number in Patients with primary hypertension. N Engl J Med 2003;348:101-9.

[25] Brenner BM, Glenn MWF, Chertow MD. Congenital Oligonephropathy and the etiology of Adult hypertension and progressiv renal injury. American Journal of Kidney Disease 1994;23:171-175.

[26] Mackenzie HS, Brenner BM. Fewer nephrons at birth: A missing Link in the Etiology of Essential Hypertension? American Journal of Kidney Disease 1995;26:91-98.

[27] Haycock GB: Development of glomerular filtration and tubular reabsorption in the human fetus and newborn. Br J Utol 81(Suppl 2):33-38,1998.

[28] Chevalier RL. Developmental renal physiology of the low birth weight pre-term newborn. J.Urol. 1996;156:714-19.

[29] Nyeengard JR, Bendtsen TF. Glomerular number and size in relation to age, kidney weight and body surface in normal man. Anat Rec 1992;232:194-201.

[30] Hincliff SA, Lynch MRJ, Sargent PH, et al. The effect of intrauterine growth retardation on the development of renal nephrons. Br. J. Obstet. Gynaecol. 1992;99:296-301.

[31] Manalich R, Reye L, Herrera MWF, et al. Relationship between weight at birth and the number and size of renal glomeruli in humans: a histomorphometric study. Kidney Int. 2000;58:770-773.

[32] Barker DJP. Growth in utero and coronary heart disease. Nutr Rev 1996;54:S1-7.

[33] Barker DJP. The fetal and infant origins of disease. Eur J Clin Invest 1995;25:457-63.

[34] Gennser G, Rymark P, Isberg PE. Low birth weight and risk of high blood pressure in adulthood. Br Med J 1988;296:1498-1500.

[35] Law CM, deSwiet AW, Osmond C, et al. Initiation of hypertension in utero and it´s amplification throuout life. Br Med J 1993;306:24-27.

[36] Yiu V, Bluka S, Zurakowski D, et al. Relationship between birthweight and blood pressure in childhood. Am J Kidney Dis 1999;33:253-260.

[37] Barker DJP, Bull AR, Osmond C, et al. Fetal and placental size and risk of hypertensionin adult life. BMJ 1990;3:259-62.

[38] Fall CHD, Vijayakumar MWF, Barker DJP, et al. Weight in infancy and prevalence of coronary heart disease in adult life. BMJ 1995;310:17-9.

[39] Barker DJP, Hales CN, Fall CHD, Osmond C, et al. Type 2 diabete mellitus, hypertension and hyperlipidaemia (syndromX):relation to reduced fetal growth. Diabetologia 1993;36:62-7.

[40] Barker DJP, Godfrey KM, Fall C, et al. Relation of birth weight and childhood respiratory infectionto adult lung function and death from chronic obstructive airways disease. BMJ 1991;303:671-5.

[41] Shaheen S. Discovery the causes of atopy. BMJ 1997;314:987-8.

[42] Eriksson H, Svardsudd K, Larsson B, et al. Risk factors for heart failure in the general population: the study of men born in 1913. Eur Heart J 1989;10:647-56.

[43] Ho KK, Anderson KM, Kannel WB, et al. Survival after the onset of congestive heart failure in Framingham Heart Study Subjects. Circulation 1993; 88:107-15.

[44] Kannel WB: Hypertension and risk of cardiovascular disease. In: Laragh JH, Brenner BM(editors): hypertension:pathophysiology, diagnosis and management. New York: Raven Press; 1990. pp101-117.

[45] Lloyd-Jones DM, Larson MG, Leip EP, et al. Lifetime risk for developing congestive heart failure: the Framingham Heart Study. Circulation 2002; 106:3068-72.

[46] Kannel WB, Belanger AJ. Epidemiology of heart failure. Am Heart J 1991;121:951-7.

[47] Packer MWF, Cohn JN, Abrehem W, et al. on behalf of the membership of the advisery council to improve outcomes nationwide in heart failure. Consensus recommendations for the management of congestive heart failure. Am J cardiol 1999;83:1A-38A.

[48] Swynghedauw B. Molecular Mechanisms of Myokardial Remodeling. Physiological Reviews. Vol.79 :1, January 1999.

[49] LeCarpentier Y, Bugaiski D, Chemla J, et al. Coordinated changes in myocardial contractility, energetics and myosin isozyme pattern following thoracic aortic stenosis in the young rat. Am J Physiol 1987;252 (Heart Circ physiol 21);H275-H282.

[50] LeCarpentiere Y, Waldenstrom A, Clerque M, et al. Major alterations in relaxation during cardiac hypertrophy induced by aortic stenosis in guinea pig. Circ Res 1987;60:107-116.

[51] Dorn GW II., Robbins J, Sugden PH. Phenotyping hypertrophie: eschew obfuscation. Circ Res 2003;92:1171-1175.

[52] Katz AM. Cardiomyopathy of overload: A major determinant of prognosis in congestive heart failure. N Engl J Med 1990;322:100-110.

[53] Schreiber SS, Oratz CE, Evan I, et al. Myosin, myoglobin and collagen synthesis in acute cardiac overload. Am J Physiol 1970;219:481-486.

[54] Grossmann W. Cardiac hypertrophy: Useful adaptation or pathological process? Am J Med 1980;69:576-584.

[55] Mann DL, Kent RL, Cooper G. Load regulation of the properties of feline cardiocytes: growth induction by cellular deformation. Circ Res 1989;64:1079-1090.

[56] Dzau VJ. The role of mechanical and humoral factors in growth regulation of vascular smooth muscle and cardiac myocytes. Curr Opin Nephrol Hypertens 1993;2:27-32.

[57] Basso N, Terragno NA. History about the discovery of the renin-angiotensin system. Hypertension 2001;38:1246-1249.

[58] Braun-Menedez E, Page IH. Suggested revision of nomenclature: angiotensin. Science 1958;127:242.

[59] Peters J. Molecular basis of human hypertension: the role of angiotensin. Baillieres Clin Endocrinol Metab 1995;9:657-78.

[60] Varagic J, Frohlich ED. Local cardiac renin-angiotensin system: hypertension and cardiac failure. J Mol Cell Cardiol 2002;34:1435-42.

[61] Dostal DE, Rothblum KN, Chernin MI, et al. Intracardiac detection of angiotensinogen and renin: a localized renin-angiotensin system in neonatal rat heart. A, J Physiol 1992;263:C838-C850.

[62] Zhang X, Dostal DE, Reiss K, et al. Identification and activation of autocrine renin-angiotensinsystem in adult ventricular myocytes. Am J Physiol 1995;269:1791-H1802.

[63] Morgan K. Diverse factors influencing angiotensin metabolism during ACE inhibition: insights from molecular biology and genetic studies. Br Heart J 1994;72(Suppl):S3-10.

[64] Zisman LS; Abraham WT; Meixell GE; et al. Angiotensin II formation in the intact human heart. Predominance of the angiotensin-converting enzyme pathway. J Clin Invest 1995;96: 1490-8.

[65] Timmermanns PB, Wong PC, Chiu AT, et al. Angiotension II receptors and angiotensin II receptor antagonists. Pharmacol Rev 1993;45:205-51.

[66] Ohkbo N, Matsubara H, Notawa Y, et al. Angiotensin type II receptors are re-expressed by cardiac fibroblasts from failing myopathic hamster hearts and inhibit cell growth and fibrilar collagen metabolism. Circulation 1997;96:3954-3962.

[67] Janiak P, Pillon A, Prost JF, et al. Role of the angiotensin subtype 2 receptor in neointima formation after vascular injury. Hypertension 1992;20:737-745.

[68] Sadoshima J, Xu Y, Slayter HS, et al. Autocrine release of angiotensin II mediates stretch-induced hypertrophy of cardiac myocytes in vitro. Cell 1993;75:977-84.

[69] Moltkin JD, Dorn GW. Cytoplasmic signaling pathway that regulate cardiac hypertrophy. Annu Rev Physiol 2001;63:391-426.

[70] Zou Y Komuro, I Yamazaki T, et al. Cell type-specific angiotensin II evoked signal transduction pathway: critical role of Gβγ subunits, Scr family and Ras in cardiac fibroblasts. Circ Res 1998;82:337-45.

[71] Weber KT, Sun Y, Tyagi SC, et al. Collagen network of the myocardium: function, structural remodeling and regulatory mechanisms. J Mol Cell Cardiol. 1994 Mar;26(3):279-92. Review.

[72] Assayag P, Carre F, Chevalier B, et al. Compensated cardiac hypertrophy: arrhythmogenicity and the new myocardial phenotype. Cardiovasc Res. 1997 Jun;34(3):439-44. Review.

[73] Weber KT,Brilla CG. Pathological hypertrophy and cardiac interstitium. Fibrosis and renning-angiotensin-aldosteron-system. Circulation 83:1849-1865,1991.

[74] deSimone G, Palmieri V. Diastolic dysfunction in arterial hypertension. J Clin Hypertens 2001;3:22-27.

[75] Böhm M. Pathophysiology of heart failure today. Herz 2002;27:75-91.

[76] Lin M, Sumimoto T, Hiwada K. Left ventricular geometry and cardiac function in mild to moderate essential hypertension. Hypertens Res 1995;18: 151-157.

[77] Devereux RB, de Simone: Left ventricular hypertrophy and Hypertension. Clin Exp Hypertens 1993;15:1025-1032.

[78] Swynghedauw B., Coraboeuf E. Basics aspects of myocardial function, growth and development. Cardiac hypertrophy and failure. In: *Cardiovascular Medicine*, edited by J.T.Willerson and J.N. Cohn. New York: Churchill Livingston, 1994, chapt 4, p.771-790.

[79] MacMahon SW, Wilcken DEL, McDonald GJ. The effect of weight reduction on left ventricular mass: a randomized controlled trial in young, overweight hypertensive patients. N Engl J Med; 1986;314:334–339.

[80] Neaton JD, Grimm RH, Prineas RJ, et al. For the Treatment of Mild Hypertension Study Research Group. Treatment of Mild Hypertension Study. Final Results. JAMA 1993; 270:713–724.

[81] Cruikshank J, Lewis J, Moore V, et al. Reversibility of left ventricular hypertrophy by differing types of antihypertensive therapy. J Hum Hypertens 1992;6:85–90.

[82] Dahlöf B, Pennert K, Hansson L. Reversal of left ventricular hypertrophy in hypertensive patients: a metaanalysis of 109 treatment studies. Am J Hypertens 1992;5: 95–110.

[83] Jennings G, Wong J. Regression of left ventricular hypertrophy in hypertensive patients: changing patterns with successive meta-analyses. J Hypertens Supp 1998;16: 29–34.

[84] Schmieder RE, Martus P, Klingbeil A. Reversal of left ventricular hypertrophy in essential hypertension: a meta-analysis of randomized double- blind studies. JAMA 1996;275: 1507–1513.

[85] Pitt B, Poole- Wilson, Segal R, et al., on behalf of the ELITE- II Investigators. Effect of losartan compared with captopril on mortality in patients with symptomatic heart failure: randomized trial – the Losartan Heart Failure Survival Study ELITE II. Lancet 2000; 335:1582–1587.

[86] Klingbeil AU, Schneider MP, Martus P, et al. Reduction of Left Ventricular Mass in Essential Hypertension: Results from a Meta- analysis including all randomized double- blind studies until December 1999. J Am Coll Cardiol 2001;37Supp A:261A.

[87] Jennings G, Wong J. Regression of left ventricular hypertrophy in hypertensive patient: changing patterns with successive metaanalyses. J Hypertens Supp 1998;16:29-34.

[88] ALLHAT Collaborative Research Group (2002) Major Outcomes in High-Risk Hypertensive Patients Randomized to Angiotensin-Converting Enzyme Inhibitor or Calcium Channel Blocker vs Diuretic. JAMA 288:2981–2997.

[89] Tedesco MA, Ratti G, Aquino D, et al. Effects of losartan on hypertension and left ventricular mass: a long term study. J Hum Hypertens 1998; 12: 505–510.

[90] Thurmann PA, Kenedi P, Schmidt A, et al. Influence of the angiotensin II antagonist valsartan on left ventriuclar hypertrophy in patients with essential hypertension. Circulation 1998; 98: 2037–2042.

[91] Kahan T et al. Rate and extent of left ventricular hypertrophy regression: a comparison of angiotensin II blockade with irbesartan and beta-blockade (abstract). J Am Coll Cardiol 1998; 32: 857–854.

[92] Dahlöf B, Devereux RB, Kjeldsen SE, et al. for the LIFE Study Group. Cardiovascular morbidity and mortality in the Losartan Intervention For Endpoint reduction in hypertension study (LIFE): a randomized trial against atenolol. Lancet 2002;359:995–1003.

[93] Packer M, Bristow MR, Cohn JN, et al. for the US Carvedilol Heart Failure Study Group (1996) The effect of carvedilol on morbidity and mortality in patients with chronic heart failure. N Engl J Med 334:1349–1355.

[94] MERIT- HF Investigators (1999) Effect of metoprolol CR/XL in chronic heart failure: Metoprolol CR/XL Randomised Intervention Trial in Congestive Heart Failure (MERIT-HF). Lancet 353:2001–2007.

[95] CIBIS II Investigators (1999) The Cardiac Insufficiency Bisoprolol Study II (CIBIS-II): a randomised trial. Lancet 353:9–13.

[96] Skorecki G, Brenner: Chronic Renal Failure, in *Harrison's principles of internal medicine* (vol 15), edited by Braunwald F, Kasper, Hauser, Longo, Jameson, 2001, pp 1551-1562.

[97] Brenner, BM: Nephron adaptation to renal injury or ablation. Am J Physiol 249:F324, 1985.

[98] US Renal Data System: USRDS 1991 Annual Report. The National Institute of Diabetes and Digestive and Kidney Diseases. Bethesda, MD, 1991.

[99] London GM, Marchais SJ, Guerin AP, et al. Cardiovascular function in hemodialysis patients. Adv Nephrol 1991;20:249-273.

[100] Harnett JD, Kent GM, Barre PE, et al. Risk factors for the development of left ventricular hypertrophy in a prospective cohort of hemodialysis patients. J Am Soc Nephr1994;4:1486-90.

[101] Harnett JD, Foley RN, Kent GM, et al. Congestiv heart failure in dialysis patients: prevalence, incidence, prognosis and risk factors. Kidney Int 1995;47:884-890.

[102] Maggi E, Belazzi R, Falaschi F, et al. Enhanced LDL oxidation in uraemic patients. An additional mechanism for accelerated atherosclerosis? Kidney Int 1994,45:876-883.

[103] Samuelsson O, Attman PO, Knight Gibson C, et al. Lipoproteine abnormalities without hyperlipidaemia in moderate renal insufficiency. Nephrol Dial Transplant 1994;9:1580-1595.

[104] US Renal Data System: Causes of death. Annual Data Report. Bethesda, Maryland: The National Institue of Health, National Institue of Diabetes and Digestive and Kidney Diseases;1995,14:79-90.

[105] Roig E, Betriu A, Castaner A, Magrina J, et al.. Disabling angina pectoris with normal coronary arteries in patients undergoing haemodialysis. Am J Med 1981,71:437-444.

[106] Rostand SG. Brunzell JD, Cannon RDIII, Victor RG. Cardiovascular complications in renal failure. J Am Soc Nephrol 1991,2:1053-1062.

[107] Rostand SG, Kirk KA, Rutsky EA: Dialysis ischaemic heart diseases: insights from coronary angiography. Kidney Int 1984;25:653-659.

[108] Silberberg J, Barre PE, Prichard SS, et al. Impact of left ventricular hypertrophy on survival of end-stage-renal-disease. Kidney Int 1989;36:286-290.

[109] Parfrey PS, Foley RN, Harnett JD, et al. Outcome and risk factors for left ventricular disorders in chronic uremia. Nephrol Dial Transplant 1996;11:1277-1285.

[110] Del Greco F, Simon NM, Roguska J. Hemodynamic studies in chronic uremia. Circulation 1069,40:87-92.

[111] Dyadyk OI, Bagniy AE, Yorovaya NF. Disorders of left ventricular structure and function in chronic uremia: how often, why and what to do with it? Eur J Heart Failure 1999;1:327-35.

[112] London GM, Guerin AP, Marchais SJ. Pathophysiology of left ventricular hypertrophy in dialysis patients. Blood Purif 1994;12:277-83.

[113] Foley RN, Parfrey PS, Harnett JD, et al. Clinical and echocardiographic disease in patients starting end-stage renal disease. Kidney Int 1992;47:186-192.

[114] Hackbarth H, Buttner D, Jarck D, et al. Distribution of glomeruli in the renal cortex of Munich Wistar Fromter (MWF) rats. Ren.Physiol.1983;6: 63-71.

[115] Kaufmann K, Hackbarth H. Quantitative vergleichende Untersuchungen zur Bestimmung der Nierenkörperchenzahl bei der Munich-Wistar-Frömter-Ratte und der Wistar-cryptorchic-Ratte. Dtsch.Tierärztl.Wochenschr. 1990; 265-304.

[116] Remuzzi A, Fassi A, Bertani T, et al. ACE inhibition induces regression of proteinuria and halts progression of renal damage in a genetic model of progressive nephropathy. Am.J Kidney Dis.1999;34: 626-632.

[117] Remuzzi A, Benigni A, Malanchini B, et al. ACE inhibition prevents renal failure and death in uninephrectomized MWF/Ztm rats. Kidney Int.1995;47: 1319-1326.

[118] Remuzzi A, Puntorieri S, Battaglia C, et al. Angiotensin converting enzyme inhibition ameliorates glomerular filtration of macromolecules and water and lessens glomerular injury in the rat. J Clin.Invest.1990; 85: 541-549.

[119] Remuzzi A, Imberti O, Puntorieri S, et al. Dissociation between antiproteinuric and antihypertensive effect of angiotensin converting enzyme inhibitors in rats. Am.J Physiol.1994;267: F1034-F1044.

[120] Macconi D, Ghilardi M, Bonassi ME, et al. Effect of angiotensin-converting enzyme inhibition on glomerular basement membrane permeability and distribution of zonula occludens-1 in MWF rats. J Am.Soc.Nephrol.2000;11:477-489.

[121] Zoja C, Remuzzi A, Corna D, et al. Renal protective effect of angiotensin-converting enzyme inhibition in aging rats. Am.J Med 1992;Suppl 92:60S-63S.

[122] Fassi A, Sangalli F, Maffi R, et al. Progressive glomerular injury in the MWF rat is predicted by inborn nephron deficit. J Am.Soc.Nephrol.1998;9:1399-1406.

[123] Remuzzi A, Fassi A, Sangalli F, et al. Prevention of renal injury in diabetic MWF rats by angiotensin II antagonism. *Exp Nephrol* 6:28-38, 1998.

[124] Rothermund L., Kreutz R. Genetic low nephron number hypertension is associated with dysregulation and renal insulin-like growth factor system during nephrogenesis. J Hypertens.2006;24(9):1857-64.

[125] Kreutz R, Kovacevic L, Rothermund L, et al. M: Effect of high NaCl diet on spontaneous hypertension in a genetic rat model with reduced nephron number. *J Hypertens* 18:777-782, 2000.

[126] Remuzzi A, Puntorieri S, Mazzoleni A, et al. Sex related differences in glomerular ultrafiltration and proteinuria in Munich-Wistar rats. *Kidney Int* 34:481-486,1988.

[127] Fassl H. Einführung in die medzinische Statistik. Heidelberg, Leipzig, Barth, 1999.

[128] Kennedy D, Omran E, Periyasamy SM, et al. Effect of chronic renal failure on cardiac contractile function, calcium cycling, and gene expression of proteins important for calcium homeostasis in the rat. *J Am Soc Nephrol* 14:90-97,2003.

[129] Shimura T, Morrison AB: A progressive glomerulosclerosis occurring in partial five-sixths nephrectomised rats. Am J Pathol 1975;79:95-106.

[130] Purkerson ML, Hoffsten PE, Klahr S. Pathogenesis of glomerulopathy associated with renal infarction in rats. Kidney Int 1976;9:407-417.

[131] Ots M, Troy JL, Rennke HG, et al. Impact of the supplementation of kidney mass on blood pressure and progression of kidney disease. *Nephrol Dial Transplant* 19:337-341,2004.

[132] Moritz K, Wintour E, Dodic M. Fetal uninephrectomy Leads to Postnatal Hypertension and compromised Reanl Function. Hypertension. 2002;39:1071-1076.

[133] Woods L, Weeks D, Rasch R. Hypertension After Neonatal Uninephrectomy in Rats Precedes Glomerular Damage. Hypertension. 2001;28:337-342.

[134] Wintour E, Moritz K, Johnson K. Reduced nephron number in adult sheep, hypertension as a result of prenatal glucocorticoid treatment. J Physiol (2003).549:3:929-935.

[135] Sainio K, Suvanto P, Davies J, et al. Glial cell line derived neurotrophic factor is requiered for bud initiation from uretriv epithelium. Development 1997;124:4077-4087.

[136] Pepicelli CV, Kispert A, Rowitch DH, et al. GDNF induces branching and increased cell proliferation in the ureter of the mouse. Dev Biol 1997;192:193-198.

[137] Towers PR, Woolf AS, Hardmann P. GDNF stimulates uretic bud outgrowth and enhances survival of ureteric bud cells in vitro. Exp Nephrol 1998;6:337-351.

[138] Moore MW, Klein RD, Farinas et al. Renal and neuronalabnormalities in micelacking GDNF. Nature 1996;382:76-79.

[139] Cullen-McEwen LA, Kett MM, Dowling J, et al. Nephron number, renal function and arterial pressure in aged GDNF heterozygous mice. Hypertension 2003;41:335-40.

[140] Zimanyi M, Bertram J, Black M. Nephron number and blood pressure in rat offspring with maternal high-protein diet. Pediatr Nephrol (2002);17:1000-1004.

[141] Zimanyi M, Bertram J, Black M. Does a Nephron Deficit in Rats Predispose to Salt-sensitive Hypertension?. Kidney Blood Press Res 2004;27:239-247.

[142] Pesce CM, Schmidt C, Fogo A, et al. Glomerula size and the incidence of renal disease in African Americans and Caucasians. J Nephrol 1994;7:355-8.

[143] Schmidt K, Pesce C, Liu Q, et al. Large glomerula size in Pima Indians: lack of change with diabetic nephropathy. J Am Soc Nephrol 1992;3:229-35.

[144] Querfeld U, Niaudet P. Nephron number and primary hypertension. N Engl J Med 2003; 348(17)1717-1719.

[145] Royer P, Habib R, Mathieu H, Courtecuisse V. L'hypoplasie renale congenitale avec reduction du nombre et hypertrophy des nephrons chez l'enfant. Ann Pediatr 1962;38:133-46.

[146] Broyer M, Niaudet P. Oligomeganephronia. In: Rose BD, ed Uptodate. Wellesley, Mass: Uptodate, 2002.

[147] Goldfarb DA, Surena FM, William EB, et al. Renal outcome 25 Years after Donor Nephrectomy. J Urol 2001;166:2043-2047.

[148] Campese VM, Kogosov E. Renal afferent denervation prevents hypertension in rats with chronic renal failure. Hypertension 1995;25:878-82.

[149] Ye S, Ozgur B, Campese VM, et al. Renal afferent impulses, the posterior hypothalamus and hypertension in rats with chronic renal failure. Kidney Int 1997;51:722-7.

[150] Converse RL, Jacobson TN, Toto RD, et al. Sympathetic overactivity in patients with chronic renal failure. N Engl J Med 1992;327:1912-8.

[151] Ligtenburg G, Blankestijn J, Oey L, et al. Reduction of sympathetic hyperactivity by enalapril in patients in chronic renal failure. N Engl J Med 1999;340:1321-8.

[152] Klein IH, Ligtenberg G, Oey PL, et al. Sympathic activity is increased in polycystic kidney disease and is associated with hypertension. J Am Soc Nephrol 2001;12:2427-33.

[153] Hausberg M, Kosch M, Harmelink O, et al. Sympathetic nerve activity in end stage renal disease. Circulation 2002;106:1974-9.

[154] Anderson S, Meyer TW, Rennke HG, et al. Control of glomerular hypertension limits glomerular injury in rats with reduced renal mass. *J Clin Invest* 76:612-619,1985.

[155] Ots M, Mackenzie HS, Troy JL, et al. Effects of combination therapy with enalapril and losartan on the rate of progression of renal injury in rats with 5/6 renal mass ablation. *J Am Soc Nephrol* 9:224-230,1998.

[156] Thomas L. Labor und Diagnose. 5. erweiterte Auflage 2000. TH-Books.

[157] Remuzzi A, Gagliardini E, Sangalli F, et al. ACE inhibition reduces glomerulosclerosis and regenerates glomerular tissue in a model of progressive renal disease. *Kidney Int*,2006.

[158] Kennedy D, Omran E, Periyasamy SM, et al. Effect of chronic renal failure on cardiac contractile function, calcium cycling, and gene expression of proteins important for calcium homeostasis in the rat. *J Am Soc Nephrol* 14:90-97,2003.

[159] Amann K, Tyralla K, Gross ML, et al. Cardiomyocyte loss in experimental renal failure: prevention by ramipril. *Kidney Int* 63:1708-1713, 2003.

[160] Levin A, Singer J, Thombson CR, et al. Prevalent left ventricular hypertrophy in the predialysis population: identifying opportunities for intervention. Am J Kidney Dis 27:347-354,1996.

[161] Levin A, Thompson CR, Ethier J. Left ventricular mass index increase in early renal disease: impact of decline in hemoglobine. Am J Kidney Dis 34:125-134, 1999.

[162] Rambausek M, Ritz E, Mall G, et al. Myocardial hypertrophy in rats with renal insufficiency. Kidney Int 1985, 28:775-787.

[163] Rössle: On the serious inflammation of the organs. Virchows Arch 1943,311:252-284.

[164] Mall G, Rambausek M, Ritz E. Myokardial interstitial fibrosis in experimental uraemia. Kidney Int 1988,33:804-811.

[165] Amann K, Kronenberg G, Gehlen F, et al. Cardiac remodeling in experimental renal failure. Nephrol Dial Transplantat, 1998; 13:1958-1966.

[166] Sun Y, Ramires FJ, Weber KT. Fibrosis of atria and great vessels in response to angiotensin II or aldosterone infusion. Cardiovasc Res. 1997 Jul;35(1):138-47.

[167] Brilla CG, Pick R, Tan LB, et al. Remodeling of the rat right and left ventricles in experimental hypertension. Circ Res. 1990 Dec;67(6):1355-64.437.

[168] Brilla CG, Zhou G, Matsubara L, et al. Collagen metabolism in cultured adult rat cardiac fibroblasts: response to angiotensin II and aldosterone. J Mol Cell Cardiol.1994Jul;26(7):809-20.

[169] Dostal DE, Baker KM. The cardiac renin–angiotensin system: Conceptual, or a regulator of cardiac function? Circulation Research 1999;85:643–650

[170] DeMarchi SF, Allemann Y, Seiler C. Relaxation in hypertrophic cardiomyopathy and hypertensive heart disease: relation between hypertrophy and diastolic function. Heart 200;83:678-84.

[171] Böhm M. Pathophysiology of heart failure today. Herz 2002;27:75-91.

[172] Hasenfuss G, Reinecke H, Studer R, et al. Relation between myocardial function and expression of sarcoplasmic reticulum Ca(2+)-ATPase in failing and nonfailing human myocardium. Circ Res 1994;75:434-42.

[173] Beuckelmann DJ, Nabauer M, Erdmann E. Intracellular calcium handling in isolated ventricular myocytes from patients with terminal heart failure. Circulation 1992;85:1046-55.

[174] Gwathmey JK, Bentivegna LA, Ransil BJ, et al. Relationship of abnormal intracellular calcium mobilisation to myocyte hypertrophy in human ventricular myocardium. Cardiovasc Res 1993;27:199-203.

[175] Jasmin G, Proschek L. Calcium and myocardial cell injury. An appraisal in the cardiomyopathic hamster. Can J Physiol Pharmacol 984;62:891–900.

[176] Frohlich ED. Fibrosis and ischemia: the real risks in hypertensive heart disease. Am J Hypertens 2001;14:194S–199S.

[177] Weisenee D, Low-Fredrich I, Richle M, et al: In vitro approach to 'uremic cardiomyopathy'. Nephron 65:392-400,1993.

[178] Lin M, Sumimoto T, Hiwada K. Left ventricular geometry and cardiac function in mild to moderate essential hypertension. Hypertens Res 1995;18:151-157.

[179] The Studies of Left Ventricular Dysfunction (SOLVD) Investigators. Effect of enalapril on survival in patients with reduced left ventricular ejection fractions and congestive heart failure. N Engl J Med 1991; 325:293-302.

[180] Cannella G, Paoletti E, Delfino R, et al. Prolonged therapy with ACE inhibitors induces a regression of left ventricular hypertrophy of dialyzed uremic patients independently from hypotensive effects. *Am J Kidney Dis* 30:659-664,1997.

[181] Suzuki H, Schaefer L, Ling H, et al. Prevention of cardiac hypertrophy in experimental chronic renal failure by long-term ACE inhibitor administration: potential role of lysosomal proteinases. *Am J Nephrol* 15:129-136, 1995.

[182] Mathew J, Sleight P, Lonn E, et al. Reduction of cardiovascular risk by regression of electrocardiographic markers of left ventricular hypertrophy by the angiotensin-converting enzyme inhibitor ramipril. *Circulation* 104:1615-1621, 2001.

[183] Shulman NB, Ford CE, Hall WD, et al. for the hypertension detection and Follow-up Program Cooperativ Group. Prognostic value of serum creatinine and effect of treatment of hypertension on renal function: results from the hypertension detection and follow-up program. Hypertension 1989;13(5suppl):I80-93.

[184] Henry RM, Kostense PJ, Bos G, et al. Mild renal insufficiency is associated wirh increased cardiovascular mortality: the Hoorn Study. Kidney Int.2002;62:1402-1407.

[185] Mann JF, Gerstein HC, Pogue J, et al. Renal insufficiency as a predictor of cardiovascular outcomes and the impact of ramipril: the HOPE randomized trial. Ann Intern Med. 2001;134:629-636.

[186] Go AS, Chertow GM, Fan D, et al. Chronic kidney disease and the risk of death, cardiovascular events and hospitalization. N Engl J Med. 2004;351:1296-1305.