

September 5, 2007

## Summary of Clinical Studies using DynaPulse Blood Pressure and Hemodynamic Monitoring System

For over 15 years, since we introduced the non-invasive DynaPulse blood pressure and pulse waveform monitoring and recording system, the DynaPulse and its innovative Pulse Dynamics hemodynamic analysis methodology, more than 100 papers have been published and presented worldwide. Here, we summarize and organize their titles, authors and sources for DynaPulse users to reference to the developments of its technology, validation and clinical applications, and to use the information for better management of hypertension and associated cardiovascular problems.

This summary is organized with seven areas of hemodynamics in clinical research applications, plus one in techniques and validations (*Studies cover multi-areas of interests may appear more than once*):

1. Hypertension management – Studies on drug and non-drug therapies
2. Hypertension and cardiovascular risk studies – Epidemiology, risk factors, Genetic and environmental risks, obesity, diets, new markers, and preventions
3. Hypertension and heart diseases – Studies on hemodynamics and cardiac problems and functions
4. Hypertension and renal diseases – Studies on hemodynamics and kidney problems and functions
5. Hypertension and stroke/vascular diseases – Studies on hemodynamics and cerebrovascular/vascular problems and functions
6. White-coat and essential hypertensions – 24-hour ambulatory blood pressure monitoring (ABPM) and circadian rhythm studies
7. Hypertension and women's cardiovascular health – Studies on hemodynamics and pregnancy
8. Pulse Dynamics R&D – The development of DynaPulse blood pressure and hemodynamic monitoring technique and clinical validation studies

We sincerely thank those researchers for their contribution to the development of Pulse Dynamics and its clinical applications.

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### ***(1) Hypertension management – Studies on drug and non-drug therapies***

2006-Book

**Arterial Stiffness and Abnormal Potassium**, by Maria Carolina Delgado, MD and Antonio Delgado-Almeida, MD, Chapter 35, in the Book **“Advanced Therapy in Hypertension and Vascular Disease”**, Ed. E.R. Mohler III, MD and R.R. Townsend, MD, Dept. of Medicine, University of Pennsylvania, USA; published by BC Decker Inc., Hamilton 2006

2004

**Effect of Antihypertensive Monotherapy and Combination Therapy on Arterial Distensibility and Left Ventricular Mass** - Joel M. Neutel, David H.G. Smith, and Michael A. Weber ; *Am J Hypertens* 2004;17:37-42

2003

**The Effect of Angiotensin Converting Enzyme Inhibitor on Vascular Distensibility** - Chen Qiling, Sun Ningling, Liu Jing, et al. (Department of Hypertension , The People's Hospital of Beijing University , Beijing , China), *中国临床医学* 2003年 第10卷 第6期; *Clinical Medical Journal of China*: 2003. Vol.10, No. 6 pp.814-815 (article in Chinese)

2002/05

**Cardiovascular Reactivity and Diurnal Arterial Compliance during Nebivolol Treatment of Young Obese Essential Hypertensives** - Golubev SA, Tsai J, Mily MN, Afanassiev VV, Vitebsk State Medical University, Vitebsk, Belarus; Pulse Metric, Inc., San Diego, CA, USA. \*Presented at the American Society of Hypertension 17th Annual Scientific Meetings, New York, New York, 2002

2001/08

**Non-Invasive Hemodynamics in Hypertension: Preliminary Results with Angiotensin II Receptor Blocker and Epithelial Sodium Channel Blocker -**

<sup>1</sup>Antonio J. Delgado, <sup>2</sup>Carlos L. Delgado León, <sup>1</sup>Antonio Delgado-Almeida, <sup>2</sup>Elymir Galvis

<sup>1</sup>Hypertension Research Unit, University of Carabobo, Valencia, Venezuela

<sup>2</sup>Cardiology Unit, M Perez Carreño Hospital, Venezuela Central University, Caracas; \*Presented at the 34th Venezuelan Congress of Cardiology, Maracaibo, Venezuela, August 2001, *Avances Cardiológicos*, Vol 21, suppl 1, S47, 2001 (article in Spanish)

2001/5

**Improved LV Function, Systemic Vascular and Brachial Artery Parameters in Hypertension: The Venezuelan Telmisartan Study** - Delgado AJ, Delgado-Almeida AR, Celis SI, and Delgado-Leon CL; *Hypertension Research Unit, University of Carabobo, Valencia, Carabobo, 2002, Venezuela*; \*Presented at the American Society of Hypertension 16th Scientific Meeting, San Francisco, CA, 2001

2000/11

**Observation of Long-term Effects of Hypertension Medication on Hemodynamic Changes - A New Home Monitoring Method** - Xie Q, Lin-Liu S, Ng AS, Tsai JJ, Tang BL, and Chio S-S, *Pulse Metric, Inc., San Diego, California USA*; \*Presented at the 5th Annual Scientific Meeting of the Heart Failure Society of America, Nov. 2000

2000-a

**Hemodynamics, Quality of Life and Metabolic Changes during Nebivolol Treatment of Young Overweight Hypertensives** - V.V. Afanasiev, M.N. Miliy, S.A. Golubev; *Vitebsk Regional Cardiology Center, Vitebsk State Medical University, Vitebsk, Belarus*; (*Journal of Hypertension* 2000; 18 (Suppl. 2): S164)

2000-b

**Insulin-Resistant Hypertensives: Hemodynamics, Quality of Life and Metabolic Changes during Nebivolol Treatment** - V.V. Afanasiev, M.N. Miliy, S.A. Golubev, *Vitebsk State Medical University, Vitebsk, Belarus; Vitebsk Cardiology Center, Vitebsk, Belarus*; \*Presented at the

International Society of Hypertension 18th Scientific Meeting, 2000 (see Hypertension 2000 Vol 18, Suppl 4, pg. S167)

1997/06

**Angiotensin Converting Enzyme Inhibitor Increases Vascular Compliance More than Adrenergic  $\alpha$ -Blockade Despite Similar Blood Pressure Reduction** - CP Liu, TJ Brinton, CJ Tseng, CW Chiou, SL Lin, SS Chio, HT Chiang, Veterans General Hospital-Kaohsiung, Taiwan, ROC, Pulse Metric, Inc., CA, USA.; \* Presented at the 8th European Meeting on Hypertension, European Society of Hypertension, Milan, Italy, June 1997

1997/04

**Adrenergic  $\alpha$ -Blockade with Intrinsic Sympathomimetic Activity May Attenuate Improvement in Vascular Compliance During Exercise** - CP Liu, TJ Brinton\*, ED Walls\*, SL Lin, SS Chio, HT Chiang. Veterans General Hospital-Kaohsiung, Taiwan, ROC and Pulse Metric, Inc., San Diego, CA, USA.; \* Presented at 12th Annual Scientific Meeting of The American Society of Hypertension, San Francisco, April, 1997

1996/10

**Arterial Compliance by Cuff Sphygmomanometer: Application to Hypertension and Early Changes in Subjects at Genetic Risk** - Brinton TJ, Kailasam MT, Wu RA, Cervenka JH, Chio S-S, Parmer RJ, DeMaria AN, O'Connor DT; UCSD and VAMC, La Jolla, CA, and Pulse Metric, Inc., San Diego, CA.; (Hypertension, 1996 Vol 28, No.4, pp. 599-603.)

1996/04

**Angiotensin Converting Enzyme Inhibitors Improve Vascular Compliance and Pump Performance in Hypertensive Patients** - Brinton TJ, Walls ED, Hu W-C, Hsu T-L, Chio S-S, Chang M-S, Liu C-P, Pulse Metric, Inc., San Diego, CA, Chung Yuan University, Taiwan, R.O.C. and Veterans General Hospital, Taipei, Taiwan, R.O.C.; \*Presented at the International Society of Hypertension 16th Scientific Meetings, 1996.

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***(2) Hypertension and cardiovascular risk studies – Epidemiology, risk factors, genetic and environmental risks, obesity, diets, new markers and preventions***

2007

**Overweight and hyperinsulinemia provide individual contributions to compromises in brachial artery distensibility in healthy adolescents and young adults** - Elaine M. Urbina, MDa,d,\* , Judy A. Bean, PhDb, Stephen R. Daniels, MD, PhDf, David D'Alessio, MDe, and Lawrence M. Dolan, MDc,d aThe Divisions of Preventive Cardiology; bBiostatistics; and cEndocrinology, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA; the dDepartment of Pediatrics and eDepartment of Internal Medicine, Division of Endocrinology, College of Medicine, University of Cincinnati, Cincinnati, Ohio, USA; and the fDepartment of Pediatrics, University of Colorado School of Medicine, Denver, Colorado, USA; J. Am. Society of Hypertension 1(3) (2007) 200-207

2006/05

**Rho Kinase Polymorphism Influences Blood Pressure and Systemic Vascular Resistance in Human Twins Role of Heredity** - Tammy M. Seasholtz, Jennifer Wessel, Fangwen Rao, Brinda K. Rana, Srikrishna Khandrika, Brian P. Kennedy, Elizabeth O. Lillie, Michael G. Ziegler, Douglas W. Smith, Nicholas J. Schork, Joan Heller Brown, Daniel T. O'Connor; Hypertension. 2006;47:1-11

2006/02

**Homocysteine, circulating vascular cell adhesion molecule and carotid atherosclerosis in postmenopausal vegetarian women and omnivores** - Ta-Chen Su<sup>a, b</sup>, Jiann-Shing Jeng<sup>e</sup>, Jung-Der Wang<sup>a, b</sup>, Pao-Ling Torng<sup>d</sup>, Sue-Joan Chang<sup>e</sup>, Chen-Fang Chen<sup>b</sup> and Chiau-Suong Liao<sup>a</sup>; <sup>a</sup>Department of Internal Medicine, National Taiwan University Hospital, College of Medicine, National Taiwan University; <sup>b</sup>Institute of Occupational Medicine and Industrial Hygiene, College of Public Health, National Taiwan University; <sup>c</sup>Department of Neurology, National Taiwan University Hospital, College of Medicine; <sup>d</sup>Department of Obstetrics and Gynecology, National Taiwan University Hospital, College of Medicine; <sup>e</sup>Department of Biology, National Cheng Kung University, Taiwan; Published at: Atherosclerosis (184) 2, 2006: 356-362

2005

**Impact of Multiple Cardiovascular Risk Factors on Brachial Artery Distensibility in Young Adults - The Bogalusa Heart Study** - Elaine M. Urbina, Lyn Kiehlkya, Jeffrey Tsai, Sathanur R. Srinivasan, and Gerald S. Berenson; Am J Hypertens 2005;18:767-771

2005/11

**Associations Between Submicrometer Particles Exposures and Blood Pressure and Heart Rate in Patients With Lung Function Impairments** - Kai-Jen Chuang, MSc, Chang-Chuan Chan, ScD, Guang-Ming Shiao, MD, Ta-Chen Su, MD; From the Institute of Occupational Medicine and Industrial Hygiene, College of Public Health (Mr Chuang, Dr Chan, Dr Su) and Department of Internal Medicine, Cardiology Section, National Taiwan University Hospital (Dr Su), College of Public Health, National Taiwan University, Taipei, Taiwan; and the Chest Department (Dr Shiao), Taipei Veterans General Hospital, Taipei, Taiwan. This study was supported by a grant from the National Science Council of Taiwan (NSC90-2320-B-002-126).; JOEM • Volume 47, Number 11, November 2005 1093

2005/02

**Brachial Artery Distensibility as A Cardiovascular Risk Marker in Asymptomatic Individuals** - Meng-Cheng Chiang, Wei-Hsian Yin, Yeu-Tyng Lin<sup>2</sup>, Hsu-Lung Jen, Jiann-Jong Wang, Wen-Pin Huang, An-Ning Feng, Yung-Nien Yang, and Mason Shing Young<sup>1</sup> ; ( J Intern Med Taiwan 2005; 16: 1-10 )

2004/11

**The effect of Tai Chi Chuan on The Vascular Compliance and Resistance in Adults** - Chun-Hsiung Wang, Jui-Heng Lee, Chin-Juey Yang, Tasi-Fwu Chou; Dept. of Cardiology, Taipei Municipal Jen-Ai Hospital, Taiwan; (Presented at The 3<sup>rd</sup> Int. Cong. on CVD, 2004, Taipei, Taiwan)

2004/7-a

**Brachial artery distensibility and relation to cardiovascular risk factors and events in the community, specified by hypertension status - the Chin-Shan Community Cardiovascular Cohort (CCCC) Study** - K.L. Chien, C.T. Yang, H.C. Hsu, T.C. Su, W.T. Chang, M.F. Chen, Y.T. Lee; National Taiwan University Hospital;

2004/7-b

**Brachial Arterial Resistance and Relation to cardiovascular risk factors in population at risk of Atherosclerosis: The Chin-Shan Community Cardiovascular Cohort (CCCC) Study** - K.L. Chien, C.T. Yang, H.C. Hsu, T.C. Su, W.T. Chang, M.F. Chen, Y.T. Lee; National Taiwan University Hospital; \* *Both papers above were presented at 1) the Annual Meeting of Taiwan Society of Cardiology, July 24, 2004, Taipei, Taiwan, and 2) the ESC Congress 2004, 28 August to 1 September 2004 in Munich, Germany, and 3) the 27th World Congress of Internal Medicine, Granada Spain, September 26th to October 1<sup>st</sup>*

2003/12

**Effects of Occupational Noise Exposure on Blood Pressure** - Ta-Yuan Chang, MS, Ruie-Man Jain, MS, Chiu-Sen Wang, PhD and Chang-Chuan Chan, ScD; College of Public Health, National Taiwan University, Taipei, Taiwan; J. Occup. Environ. Med. (JOEM) 2003; 45:1289-1296

2003/08

**Insertion/Deletion Polymorphism of the Angiotensin Converting Enzyme Gene and Arterial Elasticity at High Altitude** - Hu, Quan Zhong and Sun, Ning Ling; Department of Cardiology, Peking University People's Hospital, Beijing, China; China Molecular Cardiac Disease Journal 2003; 3 (4): 211-213 (article in Chinese)

2002/04

**Brachial Artery Distensibility and Relationship to Cardiovascular Risk Factors in Healthy Young Adults: The Bogalusa Heart Study** - Urbina EM, MD, Brinton TJ, MD, Elkasabany A, MD, PhD and Berenson GS, MD; \*American Journal of Cardiology 2002; 89:946-951

2002-a

**Changes on Brachial Artery Distensibility (BAD) and Systemic Vascular Resistance (SVR) Over Aging of Normal Population** - Qiyi Xie, Amparo S. Ng, Sen Lin-Liu, Jeffrey J. Tsai, Shiu-Shin Chio. Pulse Metric, Inc. San Diego; \*Presented at the American Society of Hypertension 17th Annual Scientific Meetings, New York, 2002

2002-b

**Diurnal Patterns of Vascular Resistance and Compliance may Impact on Blood Pressure Night Fall** - Golubev SA, Mily MN, Tsai J, Vitebsk State Medical University, Vitebsk, Belarus and Pulse Metric, Inc., San Diego, CA, USA.; \*Presented at the American Society of Hypertension 17th Annual Scientific Meetings, New York, 2002

2001/08

**Cell K Transport and Arterial Pulse Waveform Analysis: New Studies in Arterial Hypertension** - <sup>1</sup>Antonio Delgado-Almeida, Carlos L. Delgado León, <sup>1</sup>Antonio J. Delgado, <sup>2</sup>Susana Celis <sup>1</sup>Hypertension Research Unit, University of Carabobo, Valencia, Venezuela <sup>2</sup>Cardiology Unit, M Perez Carreño Hospital, Venezuela Central University, Caracas; *Advances Cardiológicos*, Vol 21, suppl 1, S31, 2001 (article in Spanish)

2001/07

**Brachial Artery Distensibility and Relationship with Cardiovascular Risk Factors** - Elaine M. Urbina<sup>1</sup>, Todd J. Brinton<sup>2</sup>, Abdalla Elkasabany<sup>3</sup>, and Gerald S. Berenson<sup>3</sup>; <sup>1</sup>Tulane University Medical Center, Section of Pediatric Cardiology, <sup>2</sup>Stanford University Medical Center, Department of Medicine, Stanford, CA., <sup>3</sup>Tulane Center for

Cardiovascular Health, New Orleans, LA. \*Presented at the First International Conference on Non-invasive Hemodynamic Monitoring for Cardiovascular Disease and Management, Taipei, Taiwan, 2001

2001/07

**Study of Hours Blood Pressure Changes in Nurse with Day and Night Shift** - Lin C-S, Chen C-Y, Ueng K-C; *Department of Internal Medicine, Chung shan Medical and Dental College Hospital*; \*Presented at the First International Conference on Non-Invasive Hemodynamic Monitoring for Cardiovascular Disease and Management, Taipei, Taiwan, 2001

2001/05-a

**Biophysical, Biochemical, Non-invasive Hemodynamic Studies for New Routine Evaluation in Hypertension** - Delgado-Almeida AR, Delgado AJ, Celis SI, Delgado-Leon CL, and Delgado MC; *Hypertension Research Unit, University of Carabobo, Valencia, Carabobo, 2002, Venezuela; and Hypertension Division, University of Michigan, Ann Arbor, 48109-0356, United States*; \*Presented at the American Society of Hypertension 16th Scientific Meeting, San Francisco, CA, 2001

2001/05-b

**Hemodynamic Characterization of Systolic Hypertension: New Findings on CV Parameters** - Delgado-Leon CL, Delgado-Almeida AR, Delgado AJ; *Hypertension Research Unit, University of Carabobo, Valencia, Carabobo, 2002, Venezuela*; \*Presented at the American Society of Hypertension 16th Scientific Meeting, San Francisco, CA, 2001

2000/07

**Comparison of Normal Ranges for Pulse Dynamic Hemodynamic Parameters Between U.S. and Chinese Population** - Q Xie, JJ Tsai, AS Ng, BL Tang, TJ Brinton, and SS Chio. Pulse Metric, Inc., San Diego, CA.; \* Presented at the Tenth Conference on Health Problems Related to the Chinese in North America, San Francisco, July 2000

1999

**Relationship between Brachial Artery Distensibility and Levels of Cardiovascular Risk Factors in Healthy Young Adults: The Bogalusa Heart Study** - Elaine M Urbina, Elkasabany Abdalla, Todd J Brinton, Gerald S Berenson, Tulane Ctr for CV Health, New Orleans, LA; (*Circulation* 1999; Vol.100, No.18:I-676)

1997/04

**Race (Black-White) and Gender Differences in Brachial Artery Compliance and Cardiac Contractility in Healthy Young Adults: The Bogalusa Heart Study** - E.M. Urbina, A. Elkasabany, T. Brinton, D. Walls, A.S. Pickoff, G.S. Berenson, Tulane Center for CV Health, New Orleans, LA; (*American Journal of Hypertension* 1997 Vol 10, No. 4, Part 2, pg. 207A)

1997

**Use of patient education and monitoring software in community pharmacies** - Miller LG; *Department of Pharmacy Practice, School of Pharmacy, Texas Tech University Health Sciences Center, Amarillo 79106, USA*; (*J Am Pharm Assoc* 1997; NS37(5): 517-521)

1996/10

**Arterial Compliance by Cuff Sphygmomanometer: Application to Hypertension and Early Changes in Subjects at Genetic Risk** - Brinton TJ, Kailasam MT, Wu RA,

Cervenka JH, Chio S-S, Parmer RJ, DeMaria AN, O'Connor DT; UCSD and VAMC, La Jolla, CA, and Pulse Metric, Inc., San Diego, CA.; (Hypertension, 1996 Vol 28, No.4, pp. 599-603.)

1996

**Pharmaceutical Care in Rural Community Pharmacy Clerkships: Emphasis on Developing Computer Skills to Enhance Patient Education** - Miller LG, Jungnickel PW and Scott DM.; *College of Pharmacy, University of Nebraska Medical Center College of Pharmacy*; (Am. J. Pharmaceutical Education 1996; 60: 249-255)

1994/05

**Non-Invasive Arterial Pulse Waveform Analysis in Hypertension: Development of the Method, and Early Compliance Changes in Subjects at Genetic Risk of Hypertension** - Kailasam MT, Brinton TJ, Wu RA, Hu G, Chio S-S, Cervenka JH, Parmer RJ, O'Connor DT; UCSD and VA MC, La Jolla, CA, and Pulse Metric, Inc., San Diego, CA.; \*Presented at the American Society of Hypertension Conference, 1994 (see American Journal of Hypertension 1994 Vol 7, No.4, Part 2, pg. 86A).

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### ***(3) Hypertension and heart diseases – Studies on hemodynamics and cardiac problems and functions***

2007/05

**Amiloride and Red Blood Cell Potassium Transport in Coronary Artery Disease: Reversion of the Clinical and ECG Alterations** - Delgado-Almeida Antonio, Delgado-Leon Carlos, Delgado-Leon A.; \*Presented at Inter-American Society of Hypertension (IASH) Meeting, 2007/05

2003

**Measures of Brachial Artery Distensibility in Relation to Coronary Calcification** - MJ Budoff, F Flores, J Tsai, T Frandsen, H Yamamoto and J Takasu; Harbor-UCLA Research and Education Institute, USA; Am J Hypertens 2003; 16:350–355

2001/11

**Measures of Noninvasive Brachial Artery-Derived Estimates of Brachial Reactivity and Systemic Compliance in Relation to Plaque Burden** - Matthew Budoff, Junichiro Takasu, Harbor-UCLA Med Ctr, Torrance, CA; Jeffrey Tsai, Timothy Frandsen, Pulse Metric, Inc., San Diego, CA; \*Presented at the American Heart Association 74th Scientific Session, Anaheim, CA 2001

2001/08

**Non-Invasive Hemodynamic Evaluation of LV Function, Systemic Vascular and Brachial Artery Parameters in Hypertension** - <sup>1</sup>Antonio Delgado-Almeida, <sup>2</sup>Carlos L. Delgado León, <sup>1</sup>Antonio J. Delgado, <sup>1</sup>Hypertension Research Unit, University of Carabobo, Valencia, Venezuela <sup>2</sup>Cardiology Unit, M Perez Carreño Hospital, Venezuela Central University, Caracas; \*Presented at the 34th Venezuelan Congress of Cardiology, Maracaibo, Venezuela, August 2001 *Avances Cardiológicos*, Vol 21, suppl 1, S32, 2001 (article in Spanish)

2001/07

**Association of Serum Lipid Profile with Brachial Arterial Compliance** - Lin L-Y, Wu C-C, Liu Y-B, Ho Y-L, Lin L-C, Liao C-S, and Lee Y-T; \*Presented at the First International

Conference on Non-invasive Hemodynamic Monitoring for Cardiovascular Disease and Management, Taipei, Taiwan, 2001

2001/05

**Non-invasive Hemodynamic Evaluation of Left Ventricular Function by Arterial Waveform Analysis in Hypertension** - Delgado-Leon CL and Delgado AJ

*Hypertension Research Unit, University of Carabobo, Valencia, Carabobo, 2002, Venezuela;* \*Presented at the American Society of Hypertension 16th Scientific Meeting, San Francisco, CA, 2001

2001/03

**Blood Pressure and Left Ventricular Myocardial Function: Its Relation in Hypertensive Patients** - Antonio J. Delgado, Carlos L. Delgado León, Susana I. Celis

Unidad de Investigaciones Clínicas, Universidad de Carabobo, Valencia, Venezuela; \*Presented at the 14th Scientific Meeting of the InterAmerican Society of Hypertension, Santiago de Chile, Chile, March 2001 Hypertension, Vol 37, No. 3, 1001, March 2001

1998

**The (dP/dt)max derived from arterial pulse waveforms during 24 hr blood pressure oscillometric recording** - Giuseppe Germanò, Stefania Angotti, Miryam Muscolo, Francesco D'Auria and Marcello Giordano; (Blood Pressure Monitoring 1998; 3:213-216)

1997/05

Suprasystolic dP/dt max Obtained by Cuff Sphygmomanometer Traces Discriminates Subjects with Impaired Contractile Cardiac Function - M Muscolo, G Germano, S Angotti, V Pecchioli, A scuteri, U Germano, M Giordano - Università "La Sapienza" Policlinico Umberto I, Rome (Italy); (Am. J. Hypertension 1997: 10: 71A)

1996/03

**The Assessment of Systemic Vascular Compliance During Cardiac Output Measurement to Evaluate Cardiovascular Loading Status** - Hu W-C, Hsu T-L, Brinton TJ, Tai L-C, Chio S-S, Wang S-P, Chang M-S, Liu C-P, Veterans General Hospital- Taipei, Taiwan, R.O.C.;

\*Presented at the American College of Cardiology 45th Annual Scientific Sessions, March 1996. (See Journal of the American College of Cardiology 1996 Vol 27 No.2, Supplement A, pg. 119A).

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***(4) Hypertension and renal diseases – Studies on hemodynamics and kidney problems and functions***

2006

**Reliability of a noninvasive device to measure systemic hemodynamics in hemodialysis patients** - Shaheen Motiwala, Ursula C. Brewster, Mark A. Perazella and Aldo J. Peixoto;

Dept. of Medicine, University of Connecticut School of Medicine and Section of Nephrology, Yale University and VA Connecticut, USA; Blood Pressure Monitoring 2006, 11:33-36

2005/12

**A Study on Adrenomedullin Level in Patients with Chronic Renal Failure and Its Changes during Dialysis** - D IAO Xiao-yan1, SUN Ning-ling1, YU Zhong-yuan2 (1. Department of Cardiology, People's Hospital of Peking University, Beijing 100044,



China; 2. Department of nephrology, People's Hospital of Peking University, Beijing 100044, China); 贵阳医学院学报 第30卷 第6期 2005年12月, JOURNAL OF GUIYANGMEDICAL COLLEGE 2005: Vol. 30 No. 6 pp520-522 (article in Chinese)

2005/08

**Arterial Compliance in Elderly Men with Chronic Kidney Disease** - Sri G. Yarlagadda a Ambreen Hussain a Dawn M. Bravata b Shaheen Motiwala a Aldo J. Peixoto c ; a Department of Medicine, University of Connecticut School of Medicine, Farmington, Conn. , b Department of Medicine (Section of General Internal Medicine), Yale University School of Medicine, New Haven, Conn. ; a Clinical Epidemiology Research Center (CERC) VA Connecticut Healthcare System, West Haven, Conn. ; c Department of Medicine (Section of Nephrology), Yale University School of Medicine, New Haven, Conn. , and c Renal Section, VA Connecticut Healthcare System, West Haven, Conn. , USA ; Am J Nephrol 2005; 25:451-458

2004/06

**Properties of Brachial Arterial Elasticity in Patients With Chronic Renal Failure** - SUN Ning-ling<sup>1</sup>, YU Zhong-yuan<sup>2</sup> ; 1. Department of Cardiology, People's Hospital of Peking University, Beijing, China , 2. Department of Nephrology, People's Hospital of Peking University, Beijing, China ; 2004年6月 贵阳医学院学报 第29卷 第3期; JOURNAL OF GUIYANGMEDICAL COLLEGE 2004; 29 (3): 217-219 (article in Chinese)

2003/09

**The study of arterial elastic function in hemodialysis patients with end-stage renal disease** - Diao Xiaoyan, Sun Ningling, Zhang Ling, et al. ; Department of Cardiology, Peking University People's Hospital, Beijing, China; 中国血液净化2003年9月第2卷第9期, Chinese Journal of Blood Purification, September 19, 2003: Vol. 2, No. 9, pp 472-475 (article in Chinese)

2001-Letter

**The (dP/dt)max derived from arterial pulse waveforms: prospective applications in the haemodialysis setting** - John Kyriazis, John Glotsos, Leonidas Bilirakis and Nikos Smirnoudis; Nephrol Dial Transplant (2001) 16: 1087-1088

2000

**Intradialytic and Interdialytic Effects of Treatment With 1.25 and 1.75 mmol/L of Calcium Dialysate on Arterial Compliance in Patients on Hemodialysis** - John Kyriazis, MD, Dimitrios Stamatiadis, MD and Ageliki Mamouna, MD; *From the Dialysis Unit, Department of Nephrology, General Hospital of Chios, Chios; and the Department of Nephrology, Laiko, General Hospital, Athens, Greece.*; (Am J Kidney Dis 2000; 35(6): 1096-1103)

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### ***(5) Hypertension and stroke/vascular diseases – Studies on hemodynamics and cerebrovascular/vascular problems and functions***

2006/01

**Twenty-four-hour ambulatory blood pressure and duration of hypertension as major determinants for intima-media thickness and Atherosclerosis of carotid arteries** - Ta-Chen Su, Yuan-The Lee, Suzzana Chou, Wen-Tsan Hwang, Chen-Fong Chen and Jung-Der Wang; (Atherosclerosis, 184 (1) 2005: 151-156)

2001/07-a

**Clinical Observations on Hemodynamic Changes and Angiographs of a Patient with Vertebral and Subclavian Artery Stenosis and Steal Phenomenon, Pre and Post Stent Operation** - Su T-C, Kao H-L, Chio S-S, Jeng J-S, Lee Y-T; *Departments of Internal Medicine (Su T-C, Kao H-L, Lee Y-T), and Neurology (Jeng J-S); National Taiwan University Hospital, Taiwan ;* \*Presented at the First International Conference on Non-invasive Hemodynamic Monitoring for Cardiovascular Disease and Management, Taipei, Taiwan, 2001

2001/07-b

**DynaPulse Blood Pressure Monitoring in Stroke** - Wu C-C, Kuo S-G, Lin L-Y, Liao C-S, Lee Y-T; *Department of Internal Medicine (Cardiology Section), National Taiwan University Hospital, Taipei, Taiwan;* \*Presented at the First International Conference on Non-invasive Hemodynamic Monitoring for Cardiovascular Disease and Management, Taipei, Taiwan, 2001

2001/07-c

**Subclinical Atherosclerosis and Measures of Vascular Stiffness** - Kim Sutton-Tyrrell, MD University of Pittsburgh, School of Public Health; \*Presented at the First International Conference on Non-invasive Hemodynamic Monitoring for Cardiovascular Disease and Management, Taipei, Taiwan, 2001

2001/05

**Assessment of Systemic Vascular Parameter and Brachial Artery Function in Hypertension** - Delgado AJ, Delgado-Almeida AR, and Delgado-Leon CL; *Hypertension Research Unit, University of Carabobo, Valencia, Carabobo, 2002, Venezuela;* \*Presented at the American Society of Hypertension 16th Scientific Meeting, San Francisco, CA, 2001

2001/03

**Systemic Vascular and Brachial Artery Parameters: Its Relationship With Blood Pressure in Hypertensive Patients** - Antonio J. Delgado, Antonio Delgado-Almeida, Susana Celis, Carlos L. Delgado León. Unidad de Investigaciones Clínicas, Universidad de Carabobo, Valencia, Venezuela.; \*Presented at the 14th Scientific Meeting of the InterAmerican Society of Hypertension, Santiago de Chile, Chile, March 2001; Hypertension, Vol. 37, No. 3, 1001, March 2001

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## ***(6) White-coat and essential hypertension – 24-hour ambulatory blood pressure monitoring (ABPM) and circadian rhythm studies***

### **Introduction to Monitoring of White Coat Hypertension with ABPM:**

Ambulatory Blood Pressure Monitoring (ABPM) is a simple procedure that takes multiple blood pressure readings over a 24-hour period. A small lightweight device, such as the DynaPulse 5000A ABP monitor, is worn by the patient throughout the day and automatically records measurements of blood pressure at preset intervals. Usually the start and end of the procedure is done in a doctor's clinic to perform the initial setup and save the recorded data. Many studies have shown ABPM to be particularly useful in patients with "white coat" hypertension, where blood pressure readings may be normal

during home blood pressure monitoring, but elevated while taken in the doctor's clinic. Other studies have been performed using ABPM examining blood pressure patterns and circadian rhythms, relationships with target organ damage and hypertension, prognosis of cardiovascular events, and the effects of hypertensive drugs (NIH Working Group Report on ABPM, 1992). Following studies demonstrate the evaluation of "white coat" hypertensives and specific cardiovascular diseases by ABPM using the DynaPulse 5000A. In combination with the ability to measure 24-hour hemodynamic parameters, the DynaPulse technology allows physicians to have a better understanding of the patterns in hemodynamic performance.

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2006/01

**Twenty-four-hour ambulatory blood pressure and duration of hypertension as major determinants for intima-media thickness and Atherosclerosis of carotid arteries** - Ta-Chen Su, Yuan-The Lee, Suzzana Chou, Wen-Tsan Hwang, Chen-Fong Chen and Jung-Der Wang; (*Atherosclerosis*, 184 (1) 2005: 151-156)

2004

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**Homocysteine, circulating vascular cell adhesion molecule and carotid atherosclerosis in postmenopausal vegetarian women and omnivores** - Ta-Chen Su<sup>a, b</sup>, Jiann-Shing Jeng<sup>e</sup>, Jung-Der Wang<sup>a, b</sup>, Pao- Ling Torng<sup>d</sup>, Sue-Joan Chang<sup>e</sup>, Chen-Fang Chen<sup>b</sup> and Chiau-Suong Liao<sup>a</sup>; <sup>a</sup>Department of Internal Medicine, National Taiwan University Hospital, College of Medicine, National Taiwan University; <sup>b</sup>Institute of Occupational Medicine and Industrial Hygiene, College of Public Health, National Taiwan University; <sup>c</sup>Department of Neurology, National Taiwan University Hospital, College of Medicine; <sup>d</sup>Department of Obstetrics and Gynecology, National Taiwan University Hospital, College of Medicine; <sup>e</sup>Department of Biology, National Cheng Kung University, Taiwan; Published at: *Atherosclerosis* (184) 2, 2006: 356-362

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***(8) Pulse Dynamics R&D – The development of DynaPulse blood pressure and hemodynamic monitoring technique and clinical validation studies***

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Ming Hsu, MS, Jeffery C. LaPointe, BS; Pulse Metric, Inc., San Diego, CA, Thao Huynh-Covey, RDCS, Oi Ling B. Kwan, RDCS, Anthony N. DeMaria, MD, FACC. UC San Diego Medical Center Hillcrest, San Diego, CA; (\*Accepted by Clinical Cardiology, to be published in 2008)

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