

# **NEUROCARD 2013 – PRELIMINARY PROGRAM**

**17<sup>th</sup> – 18<sup>th</sup> October 2013 , Hotel Metropol Palace, Belgrade, Serbia**

**Thursday, October 17<sup>th</sup>**

**08:00-09:00 Registration**

**09:00-09:30 Opening Ceremony**

**Branislav Milovanovic**

President of Serbian Neurocardiological Society, Chairmen of the meeting

**Sanja Pavlovic**

President of Serbian Autonomic Society

**Nina Japundzic-Zigon**

President of Serbian working group of basic neurocardiology

**Slavica Djukic Dejanovic**

Minister of Health, Republic of Serbia

**Tomislav Jovanovic**

Minister of Science, Republic of Serbia

**Academician Nebojsa Lalic**

Dean of the Faculty of Medicine, University of Belgrade

**Jerzy K Wranicz**

President of Polish Society for Holter and Noninvasive Electrocardiology

Member of ISHNE board, Lodz, Poland

**Iwona Cygankiewicz**

Secretary of Internatuoonal society for Holter and noninvasive electrocardiology, ISHNE, Lodz, Poland

**Rodica Avram**

Director of University Cardiology Clinic (Timisoara, Romania)

**Harald M. Strauss**

The University of Iowa, USA

**Cristian Podoleanu**

University of Targu Mures, Romania

**Tatiana Mironova**

Russian Society for Neurocardiology, Chelyabinsk, Russia

**Emanuela Locati**

Member of ISHNE board, University of Milan, Italy

**Bassim Irheim Muhammad,**

Dean College of Pharmacy, University of Al Qadisiyah, Iraq

**09:30-10:30 Basic Neurocardiology I**

Chairs: Harald Stauss (Iowa, USA), Nina Japundzic-Zigon (Belgrade, Serbia),  
Dragan Djuric (Belgrade, Serbia)

**09:30-10:00 Hemodynamic and Metabolic Effects of Chronic Vagal Nerve Stimulation in the Context of Obesity**

Harald M. Stauss, Donald A., Morgan and Kamal Rahmouni  
(Iowa City, USA)

**10:00-10:15 The role of cardiac NMDA receptors in cardiototoxic effects of homocysteine**

Djuric D, Srejovic I, Zivkovic V, Hrncic D, Stanojlovic O, Jakovljevic V  
(Belgrade, Kragujevac, Serbia)

**10:15-10:30 Over-expression of OTR in the PVN Attenuates Blood Pressure Response to Stress in Rats**

Maja Ložić-Djurić, Michael Greenwood, Olivera Šarenac, David Murphy, Nina Japundžić-Zigon  
(Belgrade, Serbia), (Bristol, England)

**10:30-11:20 Blood pressure-neural mechanisms**

Chairs: Ludovit Gaspar (Bratislava, Slovakia), Branislav Milovanovic (Belgrade, Serbia)

**10:30-10:50 Individual approach in treatment of hypertension and autonomic nervous system**

Branislav Milovanovic, Slavica Mutavdžin, Jovana Paunovic, Tatjana Gligorijević  
(Belgrade, Serbia)

**10:50-11:05 Prognostic Significance of Ambulatory Blood Pressure Monitoring in the elderly Patients**

Ludovit Gaspar, Matej Bendzala, Irena Kurcalte\*  
(Bratislava, Slovak Republic), (Riga, Latvia\*)

**11:05-11:20 Heart rate variability in adolescents and young men with mild arterial hypertension and digestive comorbidity**

Y.Venevtseva, E.Kazidaeva, A.Melnikov, O.Borisova, T.Gomova  
(Tula, Russia)

**11:20-11:50 Coffee break****11:50-13:40 Biosignal Processing**

Chairs: Dragana Bajic, (Belgrade, Serbia), Tatjana Loncar Turukalo (Belgrade, Serbia)

**11:50-12:10 Orthostatic tachycardia: complex structure, nonlinear behavior and prognostic meaning of Very Low Frequency of heart rate variability**

A.N. Fleishman, T.V. Korablinina, S.A. Petrovsky, S.M. Kislyakov  
(Novokuznetsk, Russia)

**12:10-12:25 Threshold reliability in cross-entropy estimation**

Tamara Ceranic, Branislav Milovanovic, Tatjana Loncar Turukalo, Nina Japundzic Žigon,  
Dragana Bajic,  
(Novi Sad, Belgarde, Serbia)

**12:25-12:40 Detection and quantification of apnea based on ECG and SpO2**

Neda Pištinjat, Tatjana Lončar Turukalo  
(Novi Sad, Serbia)

**12:40-12:55 Automatic artifact detection and parameterization of blood pressure recordings using EMD**

Vladimir Ostojic, Tatjana Loncar Turukalo,  
(Novi Sad, Serbia)

**12:55-13:10 Baroreflex sequences spectrum in aging animals**

Gorana Mijatovic, Tatjana Loncar Turukalo, Nina Japundzic Zigon, Dragana Bajic  
(Novi Sad, Belgrade, Serbia)

**13:10-13:25 Detrended Fluctuation Analysis of Arterial Blood Flow in Hypertension Study**

Biljana Lazović, Marina Djelić, Sanja Mazić and Dejan Žikić  
(Belgrade, Serbia)

**13:25-13:40 Ventricle segmentation in near-base and near-apex slices of MR images**

Djordje Starčević, Šveljo Olivera, Spirovski Milena, Lončar-Turukalo Tatjana,  
Petrović Vladimir  
(Novi Sad, Sremska Kamenica, Serbia)

**13:40-14:30 Lunch, Poster session**

**14:30-15:30 Cardiac Arrhythmias and Autonomic Nervous System**

Chairs: Paweł Ptaszyński (Łódź, Poland) Jerzy K. Wranicz (Łódź, Poland)

**14:30-14:45 Postablative perimitral atrial flutter: comparison of clinical results of radiofrequency ablation and mathematical scanning simulation data**

Ardashev Andrey, M.D., Ph.D., Mazurov Mikhail, PhD, Kaluzhny Igor, Zhelyakov Evgeny  
(Moscow, Russia)

**14:45-15:00 CLS – why provides heart rate according to automatic nervous activity in pacemaker patients.**

Michał Chudzik, Jerzy K Wranicz  
(Łódź, Poland)

**15:00-15:15 Self- terminating ventricular fibrillation- a case report**

Lewek Joanna, Rosiak Marcin, Wranicz Jerzy Krzysztof, Cygankiewicz Iwona  
(Łódź, Poland)

**15:15-15:30 Dynamics of twenty-four hours heart rate changes for mortality risk evaluation in patients with permanent atrial fibrillation**

Irena Kurcalte, Oskars Kalejs, Artis Kalnins, Renars Erts, Aivars Lejnieks  
(Riga, Latvia)

**15:30-17:35 Cardiac sudden death: risk stratification**

Chairs: Polychronis Dilaveris (Athens, Greece), Iwona Cygankiewicz (Lodz, Poland)

**15:30-15:50 Severe Autonomic Failure may be Prognostic for Arrhythmic Risk in Heart Failure Patients**

Petros Arsenos MD, Konstantinos A. Gatzoulis MD, Polychronis Dilaveris MD, FESC, Dimitrios Tsiachris MD, Apostolos-Ilias Vouliotis MD, Dimitrios Roussos MD, George Manis DIPL ENG\*, Christodoulos Stefanadis MD, FESC, FACC (Athens, Greece)

**15:50-16:05 Diagnostic value of ECG in pulmonary embolism**

Rodica Avram, Tudor Ciocarlie, Mihai Balint, Florina Parv, Victor Moga, Mariana Tudoran, Iulian Avram (Timisoara, Romania)

**16:05-16:20 Particularities of the regulation electrical activity of the heart of tall athletes**

Pavlov V., Linde E., Odgonikidze Z., Sharokko M., Deev V., Nikolaev V., Ivanova J. (Moscow, Russia)

**16:20-16:35 Relationship between QRS voltage and arterial pressure during upper and lower extremity dynamic exercise in healthy persons**

Saltykova M., Miller T. (Moscow, Russian Federation)

**16:35-16:50 Heart rate variability IN children with benign autonomic dysfunction syndrome**

Nikolay Tsarev, Aleksandr Melnikov, Yulia Venevtseva (Tula, Russia)

**16:50-17:05 Dysautonomia severity evaluation in Takotsubo cardiomyopathy, demonstration of cases**

Jan Galuszka (Olomouc, Czech Republic)

**17:05-17:20 Change repolarization in children with cardiac hypertrophy with Arterial Hypertension during treadmill test**

Linyaeva V.V., Leontieva I.V., Pavlov V.I. (Moscow, Russia)

**17:20-17:35 Abnormal ECG in amateur ultramarathon runner – a case report**

Izabela Poddebska, Joanna Lewek, Marcin Rosiak, Krzysztof Kaczmarek, Jerzy Krzysztof Wranicz, Iwona Cygankiewicz (Lodz, Poland)

**17:35-18:20 Cardiac Autonomic Dysfunction and Neurological Diseases**

Chairs: Sanja Pavlovic (Belgrade, Serbia), Ljudmila Stojanovic (Belgrade, Serbia)

**17:35-17:50 Nonlinear analysis of heart rate variability in patients with amyotrophic lateral sclerosis**

Sanja Pavlovic, Branislav Milovanovic, Dragana Bajic (Belgrade, Serbia)

**17:50-18:05 Cardiovascular and Neurologic Disease associated with the Antiphospholipid Syndrome (Hughes' Syndrome)**

Ljudmila Stojanovic, Aleksandra Djokovic, Milica Kontic, Vladimir Bojovic, Slavica Banicevic, Slavica Radovanovic  
(Belgrade, Serbia)

**18:05-18:20 Continuous monitoring of heart rate variability for neurorehabilitation of poststroke patients**

E.Yu. Bersenev, V.A. Selionov, I.A. Solopova  
(Moscow, Russia)

**Friday, October 18<sup>th</sup>**

**08:30-09:15 Basic Neurocardiology II**

Chairs: Harald Stauss (Iowa, USA), Nina Japundzic-Zigon (Belgrade, Serbia)

**08:30-08:45 Potential CardioprotectiveEffect Of Phenolic Compounds Against Doxorubicin Induced Cardiotoxicity**

Bassim I Mohammad, Nada Al Haris, Zainad N AL Kefaa, Najah R Hadi  
(Al Qadisiyah, Kufa, Iraq)

**08:45-09:00 Simvastatin attenuate Myocardial Ischemia/Reperfusion injury in Rat through down regulation of Inflammatory Response and Apoptosis**

Najah R. Hadi, Fadhl G. Yousif , Bassim I Mohammad and Suhad T. zamil, MSc.  
(Al Qadisiyah, Kufa, Iraq)

**09:00-09:15 Biomarkers of apoptosis and significance of their determination in ischaemic heart disease patients**

T. Ristic, B.V. Djordjevic; M. Deljanin-Ilic; S. Kundalic., V. Cosic  
(Nis, Niska Banja, Serbia)

**09:15-10:30 Genetical Aspects in Neurocardiology**

Chairs: Aleksandra Stankovic (Belgrade, Serbia), Maja Zivkovic (Belgrade, Serbia), Zaklyazminskaya Elena (Moscow, Russia)

**09:15-09:45 Primary channelopathies: on a frontier of cardiology and neurology**

Elena V. Zaklyazminskaya  
(Moscow, Russia)

**09:45-10:10 The ATR1 1166A/C and BDKRB2 –58C/T (rs1799722) gene polymorphisms impact on electrocardiographic and heart rate variability in hypertensive Serbian patients. Preliminary study**

Aleksandra Stanković, Tijana Bojić Milinović, Branislav Milovanović, Ivana Kolić, Ivan Jovanović, Dragan Alavantić , Maja Živković  
(Belgrade, Serbia)

**10:10-10:30 The renin-angiotensin system gene(s) polymorphisms influence on cardiovascular profiles in Serbian patients with vasovagal syncope: the preliminary results**

Tijana Bojić Milinović, Branislav Milovanović, Ivan Životić, Ivan Jovanović, Dragan Alavantić and Aleksandra Stanković  
(Belgrade, Serbia)

**10:30-11:00 Coffee break**

**11:00-12:00 The New Challenges I: Nano technology and Programmed placebo effect**  
Chairs: Branislav Milovanovic (Belgrade, Serbia), Suave Lobodzinski (Los Angeles, USA)

**11:00-11:30 The programmed placebo effect: new approach in medicine?**  
Milovanović Branislav, Jordanov Dragana, Matovic Branko, Romcevic Nebojsa, Branka Hadžić, Matija Lidija, Jeftic Biljana, Dragicevic Aleksandra, Koruga Djuro, Mutavdzin Slavica, Paunovic Jovana, Gligorijevic Tatjana (Belgrade, Serbia)

**11:30-11:45 Application of Raman spectroscopy in nano-medicine**  
B. Hadžić, N. Romčević, B. Milovanović (Belgrade, Serbia)

**11:45-12:00 Application of X-diffractometry in nano-medicine**  
D. Jordanov, B. Milovanović, B. Matovic, M. Rosic, (Belgrade, Serbia)

**12:00-13:05 The New Challenges II: New technologies in medicine**  
Chairs: Viktor Moga (Timossoara, Romania), Suave Lobodzinski, (Los Angeles, USA)

**12:00-12:20 Novel ECG Devices for Long Term Arrhythmia Monitoring**  
S. Suave Lobodzinski (Los Angeles, USA)

**12:20-12:35 DELTA - 2013, a New Telemedical Technology of Individual Prenosological Health Monitoring**  
O. N. Isaeva, O. I. Orlov, V. I. Pougatchev, A. G. Chernikova, R. M. Baevsky (Moscow, Russia)

**12:35-12:50 Space technologies for the health estimation and problems of «home medicine»**  
O.I. Orlov , R.M. Baevsky , E.Yu. Bersenev (Moscow, Russia)

**12:50-13:05 Prospects for application of the method of dispersion mapping of the electrocardiogram in space medicine**  
E. Bersenev, V. Rusanov, G. Ivanov, R. Baevsky (Moscow, Russia)

**13:05-13:50 Psychology and Autonomic Nervous System**  
Chairs: Goran Knezevic (Belgrade, Serbia), Rodica Avram (Timossoara, Romania)

**13:05-13:20 Co-morbidity and the occurrence of depression syndrome in patients with vaso-vagal syncope**  
A. Z. Pietrucha, A. Borowiec, E. Kondracka, D. Mroczek-Czernecka, M. Wnuk, I. Bzukala, O Kruszelnicka, J. Nessler (Cracow, Poland)

**13:20-13:35 The effects of state anxiety on cardioregulatory system during real life stress**  
D. A. Dimitriev, E. V. Saperova (Cheboksary, Russia)

**13:35-13:50 Personality and heart rate variability in medical students during 2009-2013**  
D. Eliseev, Y.Venevtseva, A. Melnikov, S.Antonenko  
(Tula, Russia)

**13:50-14:35 Lunch, Poster Session**

**14:35-16:05 Noninvasive electrocardiology and telemedicine ISHNE SESSION**  
Chairs: Iwona Cygankiewicz (Lodz, Poland), Emanuela Locati (Milan, Italy)

**14:35-14:50 Heart rate turbulence- current state of art**  
Iwona Cygankiewicz  
(Lodz, Poland)

**14:50-15:05 Heart rate variability and P wave characteristics after atrial fibrillation**  
Moga Victor-Dan, Rodica Avram, Mariana Moga, Florin Vidu  
(Timisoara, Romania)

**15:05-15:20 Methods of long term ambulatory ECG monitoring:from standard 24 hour Holter monitoring to Holter smartphone and telecardiology**  
Emanuela Locati  
(Milan, Italy)

**15:20-15:35 Neurocardiology at diagnosis coronary artery disease**  
T. Mironova, V. Mironov, V. Kuvatov, I. Utochkina  
(Chelyabinsk, Russia)

**15:35-15:50 Correlation between Pulse Wave Velocity and Heart Rate Variability in Young Patients with Isolated Systolic Hypertension**  
K.Hristova, P.Damianov, P.Atanasov, S.Milanov  
(Sofia, Bulgaria)

**15:50-16:05 Which autonomic nervous system pattern we can expect from echocardiology examination in adolescents?**  
Yulia Venevtseva, Aleksandr Melnikov, Tatiana Gomova, Elena Kazidaeva  
(Tula, Russia)

**16:05-17:35 Syncope and Autonomic Nervous System**  
Chairs: Cristian Podoleanu (Targu Mures, Romania), Branislav Milovanovic  
(Belgrade, Serbia)

**16:05-16:20 Usefulness of electrical velocimetry (EV) during head up tilt testing (HUTT) for vasovagal syncope**  
Cristian Podoleanu, Andreea Varga, Cristina Varadi, Zsuzsanna Jeremias, Annamaria Magdas, Emilian Carasca  
(Tirgu Mures, Romania)

**16:20-16:35 Analysis of baroreceptor sensitivity during head-up tilt test in patients with vasovagal syncope**  
A.Z. Pietrucha, I. Bzukala, J Jedrzejczyk-Spaho, M. Wnuk, E.Konduracka, W. Piwowarska, J. Nessler  
(Cracow, Poland)

**16:35-16:50 The usefulness of head-up tilt feedback training in patients with vasovagal syncope**

I. Bzukala, A.Z. Pietrucha, M. Wnuk, W. Piwowarska. J. Nessler  
(Cracow, Poland)

**16:50-17:05 Evaluation of influence of menstrual cycle on the results of head-up tilt test in women with vasovagal syncope**

J.Jedrzejczyk-Spaho, A.Z. Pietrucha, I.Bzukala, E.Konduracka, M. Węgrzynowska,  
O. Kruszelnicka, W. Piwowarska, J.Nessler  
(Cracow, Poland)

**17:05-17:20 Noninvasive autonomic cardiovascular tests – history and perspectives**

Paweł Ptaszyński  
(Łódź, Poland)

**17:20-17:35 The autonomic regulation and functions in cardiovascular pharmacology**

Krzysztof Kaczmarek  
(Łódź, Poland)

**17:35-18:30 Methabolic Autonomic Neuropathies**

Chairs: Zorica Rasic Milutinovic (Belgrade, Serbia), Gordana Pekovic Perunicic  
(Belgrade, Serbia)

**17:35-17:50 Local Scale Exponents of Blood Pressure and Heart Rate Variability in type 2 diabetic patients.**

Rasic-Milutinovic Z, Perunicic-Pekovic G, Pencic B, Milovanovic B and Bajic D.  
(Belgrade, Serbia)

**17:50-18:05 Dietary supplementation with polyphenol rich chokeberry juice has beneficial effects in patients with mild hypertension and mild hyperlipidemia**

N Kardum, K Šavikin, B. Milovanović, G Zdunić, S Spasić, A. Konić-Ristić  
(Belgrade, Serbia)

**18:05-18:20 The role of heart rate variability parameters in chronic kidney disease**

G. Pekovic-Perunicic, Z. Rasic-Milutinovic, B.Milovanovic, B.Pencic, D.Bajic  
(Belgrade, Serbia)

**18:20-18:30 Clossing of the meeting**

## **Posters**

**Thursday, October 17<sup>th</sup>**

- 1. Coronary artery disease, heart rate variability possibilities**  
T.Mironova, V.Mironov, A. Burmatova  
(Chelyabinsk, Russia)
- 2. Heart rate variability and high risk of lethal outcome at myocardial infarction**  
Mironova T, Turin A., Mironov M.  
(Chelyabinsk, Russia)
- 3. Unstable angina pectoris and autonomic effects of nitroglycerine**  
Mironova T., Safranova E., Shadrina I., Burmatova A.  
(Chelyabinsk, Russia)
- 4. Heart rate variability, equipment, possibilities**  
Mironova T., Mironov V.  
(Chelyabinsk, Russia)
- 5. Changes in the detection of late potentials in the first year after the acute myocardial infarction**  
Aleksandra Djokovic, B.Milovanovic S.Radovanovic, S.Hinic, B.Cakic, D.Jovic, P.Djuran, M.Krotin  
(Belgrade, Serbia)
- 6. Valvular Manifestations in Antiphospholipid Syndrome and Their Relationship to Antiphospholipid Antibody Type and Level**  
Aleksandra Djokovic, Lj. Stojanovich, S. Banicevic, B. Todic, N. Stanisavljevic, S.Radovanovic  
(Belgrade, Serbia)
- 7. The heart rate entropy predicts adverse outcomes in patients with partial anterior carotid ischemic stroke**  
A.Frolov, I.Gontschar, Nechipurenko, L.Guel, M.Belskaya  
(Minsk, Belarus)
- 8. Heart failure, extracellular matrix and heart rate variability**  
N.A. Tarskiy  
(Dubna, Russia)
- 9. The vectorcardiography in evaluation of ischemic disease**  
Zorka Pekmezovic, M.Ristic, J.Andrejic  
(Belgrade, Serbia)
- 10. Cardiac autonomic activity– right answer to many important questions in sport cardiology?**  
Zdravković M., Krotin M., Mazic S, Saric J., Radovanovic S., Pokrajac R., Milovanović B.  
(Belgrade, Serbia)

**11. Specificities of Cardiac Remodeling in Young Preadolescent Footballers – Is It Different Compared to Elder Ones?**

Zdravkovic Marija, Krotin Mirjana, Vesna Bisenic, Vukomanovic Vladimir, Prijic Sergej, Milovanovic Branislav, Zdravkovic Darko, Radovanovic Slavica, Saric Jelena, Ruzica Pokrajac, Jovan Perunicic (Belgrade, Serbia)

**12. Syncope in old patients**

B.Potic, D.Milosevic, N.Despotovic, P.Erceg, S.Vasilic, D.Tailov, S.Zdravkovic, A.Potic (Belgrade, Serbia)

**13. Clinical audit of an established paediatric transient loss of consciousness ("blackouts") clinic**

Randhay AS, Thakker P, Whitehouse WP (Nottingham, UK)

**14. Gender and cerebral lateralization: factors of cerebrogenic cardiac disfunctions**

Sanja Drača (Kruševac, Serbia)

**15. Type of cardiac arrhythmias and conduction impairment in patients younger than 40**

Nikola T. Kostic, Milos Kostic (Gracanica, Belgrade, Serbia)

**16. Botulinotherapy rehabilitation opportunities in the complex rehabilitation of patients with cerebral palsy**

S.V. Vlasenko, G.M. Kusnir, Ponomarenko E.N. (Evpatoria, Simferopol Ukraine)

**17. The criteria of athlete's heart at children**

N.A. Skuratova, L.M. Belyaeva (Gomel, Minsk, Belarus)

**Friday, October 18<sup>th</sup>**

**18. Some parameters of a 24-h ECG monitoring in infants with alte**

N.N. Korableva, L.M. Makarov (Syktyvkar, Moscow, Russia)

**19. Predictors of Survival after Acute Myocardial Infarction: benefit of intracoronary thrombolysis after ten year follow up period**

Vesna Bisenic, B. Milovanovic, M. Krotin, N. Ninkovic, S. Radovanovic, J. Saric, S. Djordjevic, A. Djokovic, I. Zivanovic, S. Hinic, D. Bisenic (Belgrade, Serbia)

**20. Predictors for Dilatation of Left Ventricle after Acute Myocardial Infarction: ten year follow up of patients treated with intracoronary thrombolysis**

Vesna Bisenic, B. Milovanovic, M. Krotin, S. Radovanovic, N. Ninkovic, J. Saric, A. Djokovic, S. Djordjevic, B. Todic , M.Zdravkovic, V.Radivojevic (Belgrade, Serbia)

**21. The influence of the age on short-time HRV in patients with myocardial infarction**

Svetlana Petrik, Sergei Shalaev, Venera Valeeva, Natalia Shanaurina, Vera Beresneva  
(Tyumen, Russia)

**22. Antiarrhythmic Effect of Omacorin a Patient with Ventricular arrhythmia after a Non-Q-Wave Myocardial Infarction**

Ardashev Andrey, M.D., Ph.D., Zhelyakov Evgeny, M.D., Ph.D., and Kuzovlev Oleg, M.D., Ph.D.  
(Moscow, Russian Federation)

**23. Impact of renal denervation on autonomic balance in hypertensive patients; the first experience**

Jan Galuszka, Miloš Táborský, Ivana Bruriánková  
(Olomouc, Czech Republic)

**24. Dynamics of the QT interval and its derivatives with young athletes with the stress test**

Linyaeva V.V., Leontieva I.V., Pavlov V.I.  
(Moscow, Russia)

**25. Myocardial electrical instability as an evaluation of QT and its derivatives on the background of the treadmill test children with symmetric HCM**

Linyaeva V.V., Leontieva I.V., Pavlov V.I.  
(Moscow, Russia)

**26. Morphofunctional state infarction in elderly patients with hypertension, or atrial fibrillation**

Yena LM, Bevziuk LV, Mudruk IV  
(Kiev, Ukraine)

**27. Orthostatic Hypertension**

T. Nišić, M. Ilić, M. Stojanović, M. Žarković, S. Popović  
(Belgrade, Serbia)

**28. Case report**

T. Nišić, M Stojanović, S. Savić, M. Stojković, J. Ćirić, B Beleslin, T. Lalić, B. Trbojević, M. Žarković  
(Belgrade, Serbia)

**29. Comparison between the index of left atrial function with the degree of left ventricular diastolic dysfunction in patients with arterial hypertension**

K.Hristova , Ts. Katova , I. Simova, , V. Kostova  
(Sofia, Bulgaria)

**30. The effects of methionine nutritional overload on  $\text{Na}^+/\text{K}^+$ -ATPase and E-NTPDase activity in the rat brain**

Stanojlović O, Hrnčić D, Rašić - Marković A, Čolović M, Krstić D, Macut Dj, Šušić V,  
Djuric D  
(Belgrade, Serbia)

**31. Acute cardiac pathology in patients with cerebral stroke in the early stage of rehabilitation**

Kleynotskaya AY  
(Saint – Petersburg, Russia)

**32. Evaluation of possible brain injury, induced by head-up tilt test related syncope in patients with vasovagal syndrome**

A. Z. Pietrucha, I. Bzukala, M. Wnuk, K. Sztefko<sup>1</sup>, A. Malek<sup>1</sup>, E. Konduracka, W. Piwowarska, J. Nessler  
(Cracow, Poland)

**33. Influence of orthostatic stress on endothelium function, clotting and fibrinolysis during head-up tilt test in patients with vasovagal syncope**

A.Z. Pietrucha, I. Bzukala, D. Fedak<sup>1</sup>, M. Wnuk, E. Konduracka, W. Piwowarska. J. Nessler  
(Cracow, Poland)

**34. The Correlation between Pulse Wave Velocity and Heart Rate Variability in Patient after Acute Coronary Syndrome**

Cieślik-Guerra U., Kamiński M., Trzos E., Kotas R., Uznańska-Loch B. Fila M., Rechciński T., Kasprzak J.D. Napieralski A., Kurpesa M.  
(Łódź, Poland)

**35. Utility of patient-activated event recorder in the detections of cardiac arrhythmias**

Todosiychuk V.V., Vasilevskaya T.A., Kuznetsov V.A.  
(Tyumen, Russia)

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