



Други међународни симпозијум из ехокардиографије

Академија наука и умјетности Републике Српске
Бања Лука, РС, БиХ, 29–30. јуна 2018.



Организатори / Organized by:

Радна група за ехокардиографију, Удружење кардиолога Републике Српске
Working Group on Echocardiography, Republic of Srpska Society of Cardiology

Академија наука и умјетности Републике Српске
Academy of Sciences and Arts of the Republic of Srpska

Универзитет у Бањој Луци, Медицински факултет
University of Banja Luka, Faculty of Medicine

2nd International Symposium on Echocardiography

June 29 – 30, 2018

Academy of Sciences and Arts of the Republic of Srpska, Banja Luka, RS, B&H



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Prof. Dr Milan Pavlović, Niš, Serbia
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Dr Dijana Trninić, Banja Luka, RS, B&H
Asist. Prof. Dr Dragan Unčanin, Banja Luka, RS, B&H
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Dr Danijela Vraneš, Belgrade, Serbia
Prof. Dr Bosiljka Vujisić Tešić, Belgrade Serbia
Prof. Dr Duško Vulić, Banja Luka, RS, B&H



Поштоване колегинице и колеге,

Радна група за ехокардиографију Удружења кардиолога Републике Српске организује, заједно са Академијом наука и умјетности Републике Српске и Медицинским факултетом Универзитета у Бањој Луци, Други међународни симпозијум из ехокардиографије. Први међународни симпозијум из ехокардиографије одржан је у марту 2014. године у хотелу "Термаг" на олимпијској планини Јахорини. На Симпозијуму су учествовали кардиолози из шест земаља, а ове године из десет: Јапана, Грчке, Велике Британије, Италије, Израела, Аустрије, Србије, Хрватске, Македоније и Босне и Херцеговине.

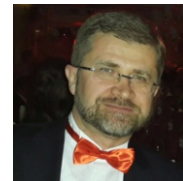
Циљ овог симпозијума је да учесницима приближи нове напредне технике ехокардиографског прегледа, прије свега тродимензионалну и четвородимензионалну ехокардиографију, те „strain“ имиџинг. Такође нам је жеља да учесницима приближимо магнетну резонанцу и компјутеризовану томографију (СТ) срца, као двије незаобилазне имиџинг методе у дијагностици кардиоваскуларних обољења. Према расположивим информацијама, у Републици Српској и Босни и Херцеговини тренутно нису доступне тродимензионална ехокардиографија и нуклеарна магнетна резонанца срца, а „strain“ имиџинг и мултидетектор СТ коронаграфија су доступне само у малом броју водећих установа. Осим предавања по позиву која ће одржати водећи европски и свјетски предавачи из области ехокардиографије и других метода кардиоваскуларног имиџинга, учествоваће и истакнути домаћи стручњаци.

Предавање посвећено Александру Д. Поповићу одржаће професор Џорџ Садерленд (George Sutherland) из Лондона, један од водећих свјетских стручњака из области ехокардиографије, а тема предавања је „Strain и strain rate“ имиџинг: прошлост, садашњост и будућност. Прије четири године предавање „Процјена исхемије миокарда“ посвећено Александру Д. Поповићу одржао је професор Сатоши Накатани (Satoshi Nakatani) из Осаке. Доцент др Александар Д. Поповић преминуо је прије двадесет година у Београду, али је оставио неизбрисив траг у области ехокардиографије и кардиологије, и његови ученици га неће никада заборавити. Он је радо долазио у Републику Српску и несебично преносио знање својим колегама. Александар Д. Поповић се обучавао и школовао у једној од најпрестижнијих ехокардиографских лабораторија у свијету, у Massachusetts General Hospital у Бостону, под руководством чувеног професора Артура Вејмена (Arthur Wayman), са којим су тада радили Роберт Левин (Robert Levine), Џејмс Томас (James Thomas) и други врхунски научници из ове области.

Надам се да ћемо имати садржајан Симпозијум из ехокардиографије, те вас срдечно поздрављам и позивам да активно учествујемо, како бисмо заједно допринијели квалитету и успјеху Симпозијума.

Проф. др Александар Лазаревић
предсједник Симпозијума и
предсједник Радне групе за ехокардиографију
Удружења кардиолога Републике Српске

WELCOME ADDRESS



Dear Colleagues,

Working Group on Echocardiography of the Republic of Srpska Society of Cardiology, together with the Academy of Sciences and Arts of the Republic of Srpska and the Faculty of Medicine, University of Banja Luka have organised the Second International Symposium on Echocardiography. The first International symposium on echocardiography was held in March 2014 in the Hotel Termag, on the Olympic mountain Jahorina. The first symposium was attended by cardiologists from six countries, while the second symposium will be attended by cardiologists from the following 10 countries: Japan, Greece, Great Britain, Italy, Israel, Austria, Serbia, Croatia, Macedonia and Bosnia and Herzegovina.

The aim of this symposium is to introduce the participants with new advanced techniques of Echocardiography, first of all three-dimensional-3D and four-dimensional-4D echocardiography, as well as with „strain“ imaging. It is also our aim to introduce the symposium participants with magnetic resonance-MRI and computerised tomography of the heart (CT), as two unavoidable imaging methods in diagnosing cardiovascular diseases. According to available information three-dimensional-3D echocardiography and nuclear magnetic resonance of the heart are not currently available in the Republic of Srpska and Bosnia and Herzegovina, while strain imaging and multidetector CT coronary angiography are available only in a few leading institutions.

Except invited lectures to be held by leading European and world lecturers in echocardiography and other cardiovascular imaging methods, lectures will also be delivered by distinguished local experts.

Professor George Sutherland from London, one of the world leading experts in echocardiography, will deliver the lecture devoted to Aleksandar D. Popović. The topic of this lecture is: "Strain and strain rate imaging: past, present and future". Four years ago, the lecture devoted to Aleksandar D. Popović "Assessment of myocardial ischemia" was delivered by Professor Satoshi Nakatani from Osaka.

Associate Professor, Dr Aleksandar D. Popović died in Belgrade twenty years ago, but he left an indelible trace in echocardiography and cardiology and his students will never forget him. He was always willing to visit the Republic of Srpska where he unselfishly transferred his knowledge to his colleagues. Aleksandar D. Popović was educated and trained in one of the most prestigious echocardiography laboratories in the world, in Massachusetts General Hospital in Boston, under the mentorship of the famous professor Arthur Wayman, with whom Robert Levine, James Thomas and other top scientists in this field were working at the time.

We hope to have a meaningful and interesting Symposium on echocardiography and I cordially invite you all to take an active part in this event so we could equally contribute the quality and success of the Symposium.

Kind regards,

Prof. Aleksandar Lazarević, MD, PhD
President, 2nd International Symposium on Echocardiography
President, Working Group on Echocardiography,
the Republic of Srpska Society of Cardiology



NAUČNI PROGRAM
SCIENTIFIC PROGRAMME

3D/4D Echocardiography in different clinical scenarios

Trodimenzionalna / četvorodimenzionalna ehokardiografija u različitim kliničkim stanjima

Predsjedavajući / Chairmen: Anđelka Ristić, Z. Mladenović

- | | |
|---------------|--|
| 08:00 | Procjena sistolne funkcije lijeve komore trodimenzionalnom ehokardiografijom /
Assessment of left ventricular systolic function by 3D echocardiography
Anđelka Ristić (Belgrade, SER) |
| 08:15 | Procjena morfologije i funkcije aurikule lijeve pretkomore trodimenzionalnom ehokardiografijom /
Assessment of morphological and functional characteristics of LAA by 3D echocardiography
J. Marić Kocijančić (Belgrade, SER) |
| 08:30 | Trodimenzionalna ehokardiografija u procjeni morfologije i funkcije vještačkih valvula /
Assessment of functional and morphological characteristics of prosthetic valves by
3D echocardiography
Z. Mladenović (Belgrade, SER) |
| 08:45 | Trodimenzionalna ehokardiografija u procjeni kardijalnih tumorskih, trombnih i stranih masa /
3D echocardiography in evaluation of cardiac tumors, thrombi and masses
D. Vraneš (Belgrade, SER) |
| 09:00 - 09:15 | Diskusija / Discussion
Invited discussants: LJ. Kos, N. Žmarić, V. Vukašinović, Ž. Živanović |
| 09:15 - 09:30 | Pauza za kafu / Coffee Break |

Urođene srčane mane kod odraslih / GUCH

Predsjedavajući / Chairmen: I. Jovanovic, D. Kalimanovska, Lj. Jovović

- 09:30 Trudnoća kod bolesnica sa urođenim srčanim manama/
Pregnancy Dilemmas in Women with Congenital Heart Disease
I. Jovanović (Belgrade, SER)
- 09:45 Tetralogija Fallot - od dijagnoze do liječenja
Tetralogy of Fallot - from diagnosis to treatment
Lj. Jovović (Belgrade, SER)
- 10:00 Bikuspidna aortna valvula i /ili aortopatija
Bicuspid aortic valve and/or aortopathy
D. Kalimanovska Oštrić (Belgrade, SER)
- 10:15 Desna i lijeva kontrastna ehokardiografija kod urođenih mana srca
Contrast echocardiography - Right and left sided in congenital heart diseases
A. Stojšić Milosavljević (Sremska Kamenica, SER)
- 10:30 - 10:45 Diskusija / Discussion
Invited discussants: LJ. Kos, S. Obradović, D. Trninić, M. Lovrić, S. Kešelj
- 10:45 - 11:00 Pauza za kafu / Coffee Break**

**Imidžing u perikardnoj patologiji /
Imaging in Life-threatening Pericardial Pathology
Predsjedavajući / Chairmen: Arsen Ristić, Y. Adler**

- 11:00 New ESC Pericardial Guidelines - What next? / Nove preporuke
Evropskog udruženja kardiologa za bolesti perikarda - šta je sljedeće?
Y. Adler (Tel HaShomer, IL)
- 11:15 Ključna uloga ehokardiografije u procjeni urgentnih stanja
perikarda i izboru strategije liječenja /
Key - role of echocardiography in the assessment of pericardial
emergencies and selection of the management strategy
A. Lazarević (Banja Luka, RS, B&H)
- 11:30 Šta mogu da pogriješim kod tamponade srca - pet poruka od pet kliničkih slučajeva /
What can I do wrong in cardiac tamponade - five messages from five cases
D. Simeunović (Belgrade, SER)
- 11:45 Lekcija eksperta: kako uraditi sigurno perikardiocentezu? /
Lesson from the master: How to perform pericardiocentesis safely?
Arsen Ristić (Belgrade, SER)
- 12:00 - 12:15 Diskusija / Discussion
Invited discussants: A. Janjić, S. Lepir, J. Jovanić
- 12:15 - 12:30 Pauza / Break**

Otvaranje simpozijuma / Opening ceremony

Predsjedavajući / Chairmen

A. Lazarević, S. Nakatani, G. Athanassopoulos

D. Šećerov Zečević, D. Vulić, D. Unčanin

Muzički uvod / Introductory piece of music

Ana Marković Malbaša, sopran / soprano

Vlado Danić, klavirski saradnik

Akademician Rajko Kuzmanović

Prof. Dr Radoslav Gajanin

Prof. Dr Ranko Škrbić

Prof. Dr Vlado Đajić

Assist. Prof. Dr Dragan Unčanin

Dr Dragan Bogdanić

Prof. Dr Aleksandar Lazarević

Mr Milorad Dodik,
President of the Republic of Srpska

Pozdravna riječ / Keynote address

Pozdravna riječ / Keynote address

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Pozdravna riječ / Keynote address

Uvodne napomene / Introductory remarks

Otvaranje simpozijuma /
Opening the symposium

Petak / Friday, 29.06.2018. 13:30 - 15:30

Glavna sesija / Main session

Osim 2D ehokardiografije: kada i zašto treba da koristimo...

Beyond 2D echo: When and why we should apply...

Predsjedavajući / Chairmen: S. Nakatani, G. Athanassopoulos, A. Lazarević

13:30	Strain imaging S. Nakatani (Osaka, JP)
13:50	3D Echocardiography G. Athanassopoulos (Athens, GR)
14:10	Vortex Imaging S. Nakatani (Osaka, JP)
14:30	MSCT R. Vidaković (Belgrade, SER)
14:50	MRI R. Maksimović (Belgrade, SER)
15:10 - 15:25	Diskusija / Discussion Invited discussants: E. Smajić, M. Dilić, J. Čaluk
15:30 - 16:30	Ručak / Lunch

Prikazi bolesnika / Case reports - Discuss It with Experts!

Predsjedavajući / Chairmen: A. Lazarević, Z. Kušljugić, T. Kovačević

Panelists: G. Athanassopoulos, S. Nakatani, I. Jovanović, M. Ostojić, Y. Adler,
D. Kalimanovska, Lj. Jovović, Z. Mladenović, Anđelka Ristić, Arsen Ristić

- 16:30 Prikaz bolesnika / Case 1: Vještačka valvula i kardiogeni šok /
Prosthetic valve and cardiogenic shock
R. Vidaković (Belgrade, SER)
- 16:45 Prikaz bolesnika / Case 2: Vitamin D i koronarni kalcifikati /
Vitamin D and coronary artery calcifications
Š. Sokolović (Sarajevo, B&H)
- 17:00 Prikaz bolesnika / Case 3: Brucelozni endokarditis / Brucella Endocarditis
K. Kovačević (Tuzla, B&H)
- 17:15 Prikaz bolesnika / Case 4: Prošli smo Scilu i Haribdu /
We have been through Scylla and Charibdis
J. Jovanić, S. Kovačević (Banja Luka, RS, B&H)

Specijalno predavanje / Special Lecture

Predsjedavajući / Chairmen: R. Vidaković, R. Maksimović

**Functional CT Imaging of Coronary Artery Disease, are they ready for clinical use? /
Funkcionalni CT imidžing u koronarnoj bolesti srca, da li je spreman za kliničku upotrebu?**

17:30 - 17:45 M. Jukić (Zagreb, CRO)

17:45 - 17:55 Diskusija / Discussion

Važna uloga stres ehokardiografije (uključujući CFR) u postavljanju dijagnoze i procjeni pacijenata sa ishemijskom bolesti srca /
The paramount Role of Stress Echocardiography (including CFR) in Determining Diagnosis and Stratification of Patients with Ischemic Heart Disease
Predsjedavajući / Chairmen: M. Ostojić, T. Kovačević, G. Sutherland

- 18:00 Stres ehokardiografija: Princeza tretirana kao Pepeljuga u interventnoj kardiologiji /
Stress Echocardiography: Princes treated as Cinderella in Interventional Cardiology
M. Ostojić (Belgrade, SER)
- 18:15 Whys and Wherefores of Dobutamine Stress Echo /
Sva ona zašto i zbog čega dobutaminskog stres eho testa
G. Sutherland (London, UK)
- 18:30 Primarna mitralna regurgitacija: vrijednost stresne ehokardiografije /
Primary mitral regurgitation: the value of Stress Echo
A. Nikolić (Belgrade, SER)
- 18:45 Stres ehokardiografija u procjeni stepena težine aortne stenoze
Stress Echo for the evaluation of aortic stenosis
B. Stanetić (Banja Luka, RS, B&H)
- 19:00 Stres Echo 2020: kontrola kvaliteta i usklađivanje kriterijuma dijagnostike u kliničkoj praksi
Stress Echo 2020: Quality control and harmonizing reading criteria in clinical practice
T. Kovačević Preradović (Banja Luka, RS, B&H)
- 19:15 - 19:30 Diskusija / Discussion
Invited discussants: D. Trninić, M. Trifković, M. Stojić

Special lecture / Specijalno predavanje

Key Role of Imaging: carotid artery stenting vs carotid artery surgery /

Ključna uloga imidžinga: karotidno stentiranje nasuprot karotidne hirurgije

Predsjedavajući / Chairmen: V. Đajić, S. Miljković

19:30 - 19:45 M. Dilić (Sarajevo, B&H)

19:45 - 19:55 Diskusija / Discussion

DRUŠTVENI PROGRAM / SOCIAL PROGRAMME

20:30 Zajedničko druženje / Get together

Hotel Bosna, restoran President / Hotel Bosna, President Restaurant



Srčana insuficijencija / Heart failure

Predsjedavajući / Chairmen: Š. Sokolović, E. Smajić, D. Unčanin, B. Goronja

- 8:00 Ehokardiografija u srčanoj insuficijenciji: pojednostavljenje složenosti /
Role of echocardiography in heart failure: breaking down complexity
 E. Smajić (Tuzla, B&H)
- 8:15 Procjena plućne hipertenzije /
Assessment of pulmonary hypertension
 Š. Sokolović (Sarajevo, B&H)
- 8:30 Prediktori smrti kod odraslih pacijenata sa Eisenmengerovim sindromom /
Predictors of Death in Adult Patients with Eisenmenger Syndrome
 T. Kovačević (Banja Luka, RS, B&H)
- 8:45 Uloga ehokardiografije optimizaciji pejsmejкера poslije CRT /
Role of echocardiography in pacemaker optimization after resynchronisation therapy
 M. Petrović (Belgrade, SER)
- 9:00 Korišćenje EKG-a i ehokardiografije u procjeni infarktne koronarne lezije u akutnom infarktu miokarda /
Use of ECG and echocardiography to assess culprit coronary lesion in acute myocardial infarction
 M. Pavlović (Niš, SER)
- 9:15 - 9:30 Diskusija / Discussion
 Invited discussants: S. Kovačević, M. Gluhović, M. Blagojević

Aortna stenoza - savremeni stavovi /
Aortic stenosis - contemporary approaches
Predsjedavajući / Chairmen: B. Vujisić Tešić, Lj. Jovović

- 9:45 Ehokardiografska procjena težine aortne stenoze: najčešće nedoumice i kako ih riješiti /
Echocardiographic Evaluation of Aortic Stenosis Severity:
Most often doubts and how to solve them
 B. Vujisić Tešić (Belgrade, SER)
- 10:00 Simptomatska aortna stenoza niskog protoka i niskog gradijenta u kliničkoj praksi /
Symptomatic "low - flow / low gradient" aortic stenosis in clinical practice
 A. Nikolić (Belgrade, SER)
- 10:15 Subvalvularna (fiksna nasuprot nasuprot dinamskoj) i supralvularna aortna stenoza /
Subvalvular (fixed vs dynamic) and supralvular aortic stenosis Patient / prosthesis mismatch
 Lj. Jovović, (Belgrade, SER)
- 10:30 Uloga magnetne rezonance u procjeni aortne stenoze i hipertrofije miokarda /
MRI for the assessment of aortic stenosis and myocaridal hypertrophy
 R. Maksimović (Belgrade, SER)
- 10:45 Uloga kompjuterizovane tomografije u procjeni aortne stenoze i TAVI /
Rolle of CT in the assessment of aortic stenosis and TAVI
 M. Lazareska (Skopje, MK)
- 11:00 Diskusija / Discussion
 Invited discussants: M. Trifković, V. Vujović, J. Jovanić
- 11:15 - 11:30 Pauza za kafu / Coffee break**

Subota / Saturday, 30.06.2018. 11:30 - 12:00

Special Lecture / Specijalno predavanje
Predsjedavajući / Chairmen: S. Nakatani, G. Athanassopoulos

11:30 - 11:50 Intravaskularni ultrazvuk / IVUS
Satoru Mitomo (Milan, IT)

13:50 - 12:00 Diskusija / Discussion

Subota / Saturday, 30.06.2018. 12:10 - 13:20

Glavna sesija / Main Session
Multimodality imaging in Infective endocarditis /
Uloga imidžinga u infektivnom endokarditisu
Predsjedavajući / Chairmen: B. Vujisić Tešić, Z. Kušljugić, Z. Mladenović

12:10 2D Ehokardiografija kod bolesnika sa IE nativnih valvula /
2D Echocardiography in patients with native valve IE
Zumreta Kušljugić (Tuzla, B&H)

12:25 2D Ehokardiografija kod bolesnika sa IE vještačkih valvula /
2D Echocardiography in patients with artificial valve IE
Bosa Vujisić Tešić (Belgrade, SER)

12:40 3D ehokardiografija kod bolesnika sa infektivnim endokarditisom /
3D Echocardiography in patients with Infectious endocarditis
Z. Mladenović (Belgrade, SER)

12:55 Savremene dijagnostičke tehnike pri procjeni infektivnog endokarditisa - SPECT, PET /
Contemporary diagnostic techniques to assess IE/SPECT, PET
Z. Mladenović (Belgrade, SER)

13:10 - 13:20 Diskusija / Discussion
Invited discussants: D. Trninić, J. Đoković, D. Mladenović

13:20 - 13:35 Pauza za kafu / Coffee break

Aleksandar D. Popović Lecture
Predsjedavajući / Chairmen: S. Nakatani, A. Lazarević

- | | |
|----------------------|---|
| 13:35 - 13:40 | U znak sjećanja na Aleksandra D. Popovića 1998-2018. /
In memory of Aleksandar D. Popović 1998-2018
A.Lazarević (Banja Luka, RS, B&H) |
| 13:40 - 14:10 | Strain and strain rate: past, present and future
G. Sutherland (London, UK) |
| 14:10 - 14:20 | Diskusija / Discussion |
| 14:20 - 14:30 | Zatvaranje simpozijuma / Closing remarks |

Subota / Saturday, 30.06.2018.

15:00 - 16:00 Ručak / Lunch

16:00 - 20:00 Rafting / Rafting



Mjesto i vrijeme održavanja simpozijuma / Symposium Venue and Data

Banja Luka, Akademija nauka i umjetnosti Republike Srpske, 29-30. juni 2018.

Banja Luka, Academy of Sciences and Arts of the Republic of Srpska, June 29-30, 2018

Vrijeme registracije / Registration opening hours

Petak / Friday	29. 06. 2018. / June 29, 2018	07:00 - 20:00
Subota / Saturday	30. 06. 2018. / June 30, 2018	08:00 - 14:00

Kotizacija / Registration fees

Kotizacija je besplatna / No registration fee.

Tehnički organizator / PCO professional Symposium organizer

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Prostor za izložbu / Exhibition Area

Vrijeme postavljanja izložbe / Set up time:

Petak / Friday	29.06.2018. / June 29, 2018	07:00 - 09:00
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Vrijeme raspremanja izložbe / Dismantling time:

Subota / Saturday	30.06.2018 / June 30, 2018	14:00 - 15:00
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Potvrda o učešću / Certificate of Attendance

Bodovanje

Predavači - 10 bodova (Aktivno učešće) Učesnici - 5 bodova (Pasivno učešće) Učesnici u naučnom ili organizacionom odboru - 6 bodova

Bodovi se dodjeljuju prema Pravilniku Savjeta za zdravlje i Odluke Ministarstva zdravlja i socijalne zaštite Republike Srpske

broj: 11/04-500-25-122/18, od 21. juna 2018.

Certificate of Attendance / Points system / Lecturers - 10 points (Active participation) / Attendees - 5 points (Passive participation)/

Participants in scientific or organizational board - 6 points. Points are awarded in accordance with the Rulebook of the Board of Health

of the Republic of Srpska Ministry of Health and Social Welfare and the Board Decision number 11/04-500-25-122/18, dated 21 June 2018.

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