GODIŠNJAK
KBC "DR DRAGIŠA MIŠOVIĆ - DEDINJE"

ZBORNIK SAŽETAKA PUBLIKOVANIH NAUČNO-ISTRAŽIVAČKIH I STRUČNIH RADOVA ZAPOSLENIH ZDRAVSTVENIH RADNIKA I SARADNIKA U 2014. GODINI

MISIJA

Naša misija je briga o pacijentima uz korišćenje savremenih zdravstvenih tehnologija u skladu sa standardima kvalitetne i bezbedne zdravstvene zaštite sekundarnog i tercijarnog nivoa, nastavljajući naučnoistraživački rad i obrazovanje studenata u dodiplomskoj i poslediplomskoj nastavi.

VIZIJA

Prepoznatljivost u obezbeđivanju zdravstvene zaštite sekundarnog i tercijarnog nivoa, svim građanima u skladu sa usvojenim standardima kvalitetne i bezbedne zdravstvene zaštite i visokim renomeom naučnoistraživačke i obrazovne delatnosti.

GODIŠNJAK KBC "DR DRAGIŠA MIŠOVIĆ-DEDINJE"

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KBC "Dr Dragiša Mišović Dedinje" ima dugu tradiciju u obrazovnom i naučno-istraživačkom radu, te ova oblast predstavlja neizostavni deo naše misije i vizije. U današnje, izuzetno dinamično vreme brojnih tehnološko-tehničkih dostignuća, nanotehnologija, kao i rapidnog napretka medicinskih i biomedicinskih nauka, težimo da zadržimo fleksibilnost i agilnost za brzu adaptaciju bujici promena koje "novo vreme" donosi, a koje prate potrebe korisnika zdravstvene zaštite.

Kao institucija koja predstavlja nastavnu bazu Medicinskog fakulteta Univerziteta u Beogradu, a učestvuje i u izvođenju nastave Farmaceutskog i Filozofskog fakulteta, Visoke zdravstvene škole strukovnih studija u Beogradu i srednjih medicinskih škola, imamo obavezu da pratimo sva naučna dostignuća, da negujemo inventivnost zaposlenih, a inovacije koje donose benefit pacijentu, primenimo u svakodnevnoj praksi.

Stoga, je ovaj Zbornik nastao kao rezultat vrednog i upornog zalaganja zaposlenih u KBC "Dr Dragiša Mišović-Dedinje" tokom 2014. god. da, pored svakodnevih obaveza u lečenju i nezi pacijenata, daju svoj doprinos nacionalnoj i međunarodnoj naučnoj zajednici, kako bi se na temelju naših rezultata rađale nove ideje koje vode zdravijem i boljem životu.

Zbornik je sačinjen od rezimea publikovanih radova u stručno-naučnim nacionalnim i međunarodnim časopisima, kao i prezentovanih radova na kongresima u zemlji i inostranstvu, a namenjen je studentima, stručnoj javnosti, našim pacijentima i svim prijateljima KBC "Dr Dragiša Mišović-Dedinje".

Sadržaj

ORIGINALNI RADOVI U ČASOPISIMA SA

JCR (JOURNAL CITATION REPORTS) LISTE

Subclinical Hypothyroidism and Left Ventricular Mechanics: A Three-Dimensional Speckle Tracking Study

Tadic, M; Ilic, S; Kostic, N; Caparevic, Z; Celic, V

Journal Of Clinical Endocrinology & Metabolism; 99;1:307-314

M21	IF:6.310

Abstract

Context: Subclinical hypothyroidism (SHT) is associated with left ventricular (LV) remodeling. The LV mechanics has not been previously assessed by two-and three-dimensional (2DE and 3DE) speckle tracking imaging in the SHT patients.
Objectives: The objective of the study was to investigate LV mechanics by 2DE and 3DE speckle tracking in the SHT patients and evaluate the influence of levothyroxine therapy on LV remodeling.
Design: We conducted a prospective study. All SHT patients received levothyroxine therapy and were followed up for 1 year after the euthyroid state had been achieved.
Setting: The study was performed at a university hospital.
Patients: We included 54 untreated women with SHT and 40 healthy control women who were of similar age.
Main Outcome Measures: The 2DE strain and strain rates, 3DE volumes, 3DE strain, and thyroid hormones levels were assessed.
Results: The 2DE LV longitudinal and circumferential strain and systolic and early diastolic strain rates were significantly decreased in the SHT patients before therapy in comparison with the controls or the SHT patients after therapy. The 3DE LV cardiac output and ejection fraction were significantly reduced in the SHT patients at baseline compared with the controls or patients after 1 year of treatment. The 3DE LV longitudinal and radial strains were significantly lower in the SHT group before treatment in comparison with the controls or patients after therapy, whereas the 3DE LV circumferential and area strains gradually increased from untreated SHT patients, among the treated SHT patients, to the controls.
Conclusion: SHT significantly affects LV deformation assessed by 2DE and 3DE speckle tracking. The improvement of LV mechanics after 1 year of levothyroxine treatment is significant but incomplete.

Is there a relationship between right-ventricular and right atrial mechanics and functional capacity in hypertensive patients?

Tadic M, Cuspidi C, Suzic-Lazic J, Andric A, Stojcevski B, Ivanovic B, Hot S, Scepanovic R, Celic V.

J Hypertens. 2014 Apr;32(4):929-37.

M21	IF: 4.22

Abstract

BACKGROUND:
We sought to assess right-ventricular and right atrial deformation in patients with arterial hypertension by two-dimensional speckle tracking imaging and three-dimensional echocardiography (3DE), and define the relationship between right-ventricular mechanics and exercise capacity in the study population.
METHODS:
This cross-sectional study included recently diagnosed untreated hypertensive patients, well controlled hypertensive patients, treated patients with unsatisfactory controlled blood pressure and control individuals adjusted by sex and age. All the patients underwent complete two-dimensional echocardiography and 3DE examination, as well as cardiopulmonary exercise testing.
RESULTS:
Right-ventricular strain, and systolic and early diastolic strain rates were significantly decreased in the untreated and the uncontrolled hypertensive patients in comparison with the controls and the well controlled participants. Similar results were obtained for right atrial strain and strain rates. 3DE right-ventricular volumes were increased, whereas 3DE right-ventricular ejection fraction was decreased in the uncontrolled hypertensive patients in comparison with the controls and the well treated patients. Differences in 3DE right-ventricular volumes disappeared after adjustment for body surface area. Considering the whole study population, global right-ventricular strain (β=0.29, P=0.018) and 3D right-ventricular stroke volume (β=0.22, P=0.041) were independently associated with peak oxygen uptake (VO(2max)) which was significantly decreased in the untreated and the uncontrolled hypertensive patients in comparison with the remaining two groups.
CONCLUSION:
Our study showed that right-ventricular and right atrial mechanics, as well as exercise capacity, are significantly deteriorated in the hypertensive patients who are untreated or ineffectively treated. Global right-ventricular strain and 3DE right-ventricular stroke volume are independently associated with functional capacity in the whole study population.

Does the metabolic syndrome impact left-ventricular mechanics? A two-dimensional speckle tracking study

Tadic M, Cuspidi C, Majstorovic A, Pencic B, Backovic S, Ivanovic B, Scepanovic R, Martinov J, Kocijancic V, Celic V.

J Hypertens. 2014 Sep;32(9):1870-8.

M21	IF: 4.22

Abstract

OBJECTIVE:
To evaluate left-ventricular mechanics estimated by two-dimensional echocardiography (2DE) speckle tracking analyses in patients with the metabolic syndrome.
METHODS:
This cross-sectional study included 95 untreated patients with metabolic syndrome and 65 controls similar by sex and age. Metabolic syndrome was defined by the presence of at least three ATP-AHA-NHLB criteria. All the patients underwent adequate laboratory analyses and complete 2DE examination.
RESULTS:
2DE global longitudinal and circumferential strain was significantly decreased in the metabolic syndrome group, whereas 2DE global radial strain was similar between the observed groups. The left-ventricular torsion was similar between the metabolic syndrome participants and the controls; whereas the left-ventricular untwisting rate was significantly increased in the metabolic syndrome group. The increasing number of the metabolic syndrome criteria induces progressive reduction of the left-ventricular longitudinal strain from the individuals with no metabolic syndrome risk factors to the individuals with five metabolic syndrome criteria. The same pattern was not noticed for left-ventricular circumferential and radial strain. The combination of increased blood pressure, abdominal obesity and increased fasting glucose level was associated with the higher level of left-ventricular mechanical impairment comparing with other clusters of the metabolic syndrome components. The multivariate analysis of the metabolic syndrome criteria showed that 24-h mean blood pressure, waist circumference and fasting glucose level were independently associated with 2DE global longitudinal and circumferential myocardial strain, and left-ventricular untwisting rate. The interaction between sex and metabolic syndrome significantly impacts the left-ventricular longitudinal strain and untwisting rate.
CONCLUSION:
Left-ventricular mechanics assessed by 2DE strain is significantly impaired in the metabolic syndrome patients. Among all metabolic syndrome components, blood pressure, waist circumference and fasting glucose level are the most responsible for damage of left-ventricular deformation.

KeyWords Plus: Tissue Doppler-Echocardiography; Myocardial-Infarction; Cardiac-Function; Clinical-Applications; Overt Hypothyroidism; Diastolic Function; Thyroxine Therapy; Risk-Factor; Recommendations; Dysfunction

Effects of the metabolic syndrome on right heart mechanics and function

Tadic M, Cuspidi C, Sljivic A, Andric A, Ivanovic B, Scepanovic R, Ilic I, Jozika L, Marjanovic T, Celic V.

Can J Cardiol. 2014 Mar;30(3):325-31.

M21	IF: 3.94

Abstract

BACKGROUND:
We sought to investigate right ventricular (RV) and right atrial (RA) deformation obtained using 3-dimensional echocardiography (3DE) and 2-dimensional (2DE) strain in subjects with the metabolic syndrome (MS).
METHODS:
This cross-sectional study included 108 untreated subjects with the MS and 75 control subjects similar according to sex and age. The MS was defined by the presence ≥ 3 American Heart Association/National Heart, Lung, and Blood Institute criteria. All the subjects underwent adequate laboratory analyses and complete 2DE and 3DE examination.
RESULTS:
2DE global longitudinal strain of the RV was significantly decreased in the MS group compared with the control subjects (-24 ± 5 vs -27 ± 5%; P < 0.001). Similar results were obtained for the RA longitudinal strain (40 ± 5 vs 44 ± 7%; P < 0.001). Systolic and early diastolic RV and RA strain rates were decreased, whereas late diastolic strain rates were increased among the MS participants compared with the control subjects. 3DE RV ejection fraction was significantly decreased in the MS subjects (55 ± 4 vs 58 ± 4%; P < 0.001). The multivariate analysis of MS criteria showed that systolic blood pressure, waist circumference, and fasting glucose were independently associated with RV and/or RA myocardial function and deformation.
CONCLUSIONS:
RV mechanics and RA mechanics, assessed using 3DE and 2DE strain, were significantly deteriorated in the MS subjects. Among all MS risk factors, systolic blood pressure, abdominal circumference, and fasting glucose were the most responsible for the right heart remodelling.

Two- and three-dimensional speckle tracking analysis of the relation between myocardial deformation and functional capacity in patients with systemic hypertension

Celic V, Tadic M, Suzic-Lazic J, Andric A, Majstorovic A, Ivanovic B, Stevanovic P, Iracek O, Scepanovic R.

Am J Cardiol. 2014 Mar 1;113(5):832-9.

M21	IF: 3.42

Abstract

The purpose of this study was to investigate left ventricular (LV) mechanics in hypertensive patients by 2- and 3-dimensional (3D) speckle tracking imaging, and determine the relation between the LV mechanics and functional capacity in this population. This cross-sectional study included 51 recently diagnosed, untreated, hypertensive patients, 49 treated subjects with well-controlled arterial hypertension, 52 treated participants with uncontrolled hypertension, and 50 controls adjusted by gender and age. All the subjects underwent 24-hour blood pressure monitoring, complete 2-dimensional and 3D examination, and cardiopulmonary exercise testing. 3D global longitudinal, circumferential, radial, and area strains were similar between the control group and well-controlled hypertensive patients but significantly decreased in comparison with patients with untreated or inadequately controlled hypertension. Similar findings were obtained for LV torsion and twist rate, whereas LV untwisting rate significantly deteriorated from the controls, across the well-controlled group, to the patients with untreated or uncontrolled hypertension. Peak oxygen uptake was significantly lower in the patients with untreated and uncontrolled hypertension than in the controls and the well-treated hypertensive patients. Peak oxygen uptake was independently associated with LV untwisting rate ($\beta = 0.28$, $p = 0.03$), 3D LV ejection fraction ($\beta = 0.31$, $p = 0.024$), and 3D global longitudinal strain ($\beta = 0.26$, $p = 0.037$) in the whole hypertensive population in our study. In conclusion, LV mechanics and functional capacity are significantly impaired in the patients with uncontrolled and untreated hypertension in comparison with the controls and the well-controlled hypertensive patients. Functional capacity is independently associated with 3D global longitudinal strain, LV untwisting rate, and 3D LV ejection fraction.

Association Between Left Ventricular Mechanics and Heart Rate Variability in Untreated Hypertensive Patients

Tadic M, Cuspidi C, Pencic B, Pavlovic SU, Ivanovic B, Kocijancic V, Celic V.

J ClinHypertens (Greenwich). 2014 Dec 15.doi: 10.1111/jch.12459. [Epub ahead of print]

M22	IF: 2.95

Abstract

The authors sought to investigate left ventricular (LV) mechanics and heart rate variability (HRV), and their relationship, in untreated hypertensive patients. A total of 63 untreated hypertensive patients and 45 healthy patients were included. All patients underwent 24-hour Holter monitoring and echocardiographic examination (two- and three-dimensional). All parameters of time and frequency domain of HRV were decreased in the hypertensive patients. Two-dimensional LV longitudinal and circumferential deformation was significantly reduced in hypertensive patients. Three-dimensional LV strain in all three directions as well as area strain were reduced in the hypertensive group. In two different models of multivariate regression, two-dimensional LV longitudinal and circumferential strain, as well as three-dimensional LV area strain, remained associated with HRV parameters independently of LV structural and functional parameters. This study showed that LV mechanics and HRV were significantly impaired in untreated hypertensive patients. Two- and three-dimensional echocardiographic LV deformation were independently associated with HRV parameters in the whole study population.

The association between heart rate variability and biatrial phasic function in arterial hypertension

Tadic M, Cuspidi C, Pencic B, Marjanovic T, Celic V.

J Am SocHypertens. 2014;8(10):699-708

M22	IF: 2.68

Abstract

We sought to investigate (1) left atrial (LA) and right atrial (RA) phasic function and mechanics; (2) heart rate variability (HRV); and (3) their relationship in untreated hypertensive patients. This cross-sectional study involved 73 untreated hypertensive patients and 51 subjects without cardiovascular risk factors with similar gender and age. All the subjects underwent a 24-hour Holter monitoring and comprehensive two- and three-dimensional echocardiography examination. LA and RA reservoir and conduit function, estimated by total and passive atrial emptying fractions and systolic and early diastolic strain rates, were reduced in the hypertensive patients. On the other hand, LA and RA booster function, assessed by active atrial emptying fraction and late diastolic strain rate, was increased in this group. All time and frequency domain heart-rate variability parameters were reduced in the hypertensive subjects. In the whole study population, parameters of cardiac sympathovagal balance (standard deviation of all normal RR intervals, root mean square of the difference between the coupling intervals of adjacent R-R intervals, 24-hour low-frequency domain [0.04-0.15 Hz], 24-hour high-frequency domain [0.15-0.40 Hz], and 24-hour total power [0.01-0.40 Hz]) correlated with LA and RA volume indexes, biatrial booster function assessed by active emptying fraction, biatrial longitudinal function evaluated by longitudinal strain; and biatrial expansion index. LA and RA phasic function and mechanics are significantly impaired in the untreated hypertensive patients. Heart-rate variability parameters are also deteriorated in the hypertensive population. Biatrial function and mechanics correlated with cardiac autonomic nervous system indexes in the whole study population.

Left and right atrial phasic function and deformation in untreated patients with prediabetes and type 2 diabetes mellitus

Tadic M, Ilic S, Cuspidi C, Ivanovic B, Bukarica L, Kostic N, Marjanovic T, Kocijancic V, Celic V.

Int J Cardiovasc Imaging. 2014 Sep 12

M22	IF: 2.32

Abstract

To evaluate phasic function and deformation of the left atrium (LA) and right atrium (RA) in subjects with prediabetes and type 2 diabetes mellitus. This cross-sectional study included 50 untreated normotensive subjects with prediabetes, 60 recently diagnosed normotensive diabetic patients and 60 healthy controls of similar sex and age. All the subjects underwent laboratory analyses and complete echocardiographic examination including strain analysis. LA and RA reservoir and conduit function gradually decreased, while booster pump increased, from the healthy controls, throughout the prediabetics, to the diabetics. The strain analysis of atrial phasic function showed more regular pattern of progressive atrial function deterioration than conventional evaluation with total, active and passive atrial function. In the whole study population HbA1c correlated with LA passive emptying fraction ($r = -0.38$, $p < 0.01$), LA active emptying fraction ($r = 0.36$, $p < 0.01$), LA longitudinal strain during systole ($r = -0.35$, $p < 0.01$), RA passive emptying fraction ($r = -0.42$, $p < 0.01$), RA active emptying fraction ($r = 0.38$, $p < 0.01$), and RA longitudinal strain during systole ($r = -0.32$, $p < 0.01$). However, only LA passive emptying fraction ($\beta = -0.32$, $p < 0.01$) and LA longitudinal strain during systole ($\beta = -0.28$, $p = 0.02$) were independently associated with HbA1c among the LA parameters; whereas solely RA passive emptying fraction ($\beta = -0.37$, $p < 0.01$) and RA active emptying fraction ($\beta = 0.31$, $p = 0.01$) were independently associated with HbA1c among the RA parameters. LA and RA phasic functions are significantly impaired in the prediabetics and the diabetics. The parameter of glucose control correlated with LA and RA reservoir, conduit and pump atrial function.

The Influence of Type 2 Diabetes on Left Atrial Remodeling

Tadic M, Cuspidi C.

ClinCardiol. 2014 Nov 17.doi: 10.1002/clc.22334. [Epub ahead of print]

M22	IF: 2.25

Abstract

The influence of type 2 diabetes mellitus on cardiac remodeling has been evaluated for decades; however, the majority of investigations were focused only on the left ventricle. The impact of diabetes on the left atrial (LA) function is less researched. LA enlargement has been shown as an independent predictor of cardiovascular morbidity and mortality in the general and diabetic population; however, LA dysfunction has been proven to be an independent predictor only in the general population. There are not much follow-up data about the influence of diabetes on LA function. New echocardiographic techniques, such as 2-dimensional speckle tracking imaging, provide more accurate, sensitive, and reliable information about LA function than traditional, volumetric methods. The aim of this review was to summarize the most recent reports about the influence of diabetes on LA function, as well as to discuss the possible mechanisms and potential clinical implications of the relationship between diabetes and LA remodeling.

In vitro protease inhibition and cytotoxicity of Aspergillus fumigatus biomolecules secreted under long-term aerated conditions

Arsic Arsenijevic VS, Pekmezovic MG, Rajkovic KM, Vekic BP, Barac AM, Tasic-Otasevic S, Petkovic LDj

Int J Med Sci. 2014 Aug 19;11(11):1133-9.

M22	IF: 1.552

Abstract

The fatality rate of invasive aspergillosis (IA) is still very high, especially in prolonged and untreated pulmonary cases. Aspergillus fumigatus is the main causative agent of IA and investigation of its metabolites could provide valuable insight into virulence factor(s) associated with this organism. We evaluated the A. fumigatus culture filtrate (CF) products generated during short- and long-term aerated and non-aerated conditions and tested for (i) inhibition of cysteine or serine proteases and (ii) cytotoxicity. In addition, the mathematical model was determined using response surface methodology (RSM) to estimate the influence of different fermentation conditions on A. fumigatus CF characteristics, predict enzyme inhibition and make possible correlations with in vivo conditions. Biosynthesis of A. fumigatus low molecular weight proteinaceous products (from 6.4 to 15.4 kDa) was observed after 6 days of growth under aerated and alkaline conditions. Also, only these CFs showed significant reduction in cell lines survival (Caco-2 and WISH 35.6% and 54.6%, respectively). Obtained results provide solid starting point for further studies that would include: (i) detailed chemical characterization of A. fumigatus CF, (ii) activity relationships and in vivo correlation with pathogenicity of prolonged pulmonary IA and (iii) possible use of biomolecules as diagnostic or therapeutic markers.

The different effects of resveratrol and naringenin on isolated human umbilical vein: The role of ATP-sensitive K^+ channels

Dragana Protić, Bojana Beleslin-Čokić, Svetlana Spremović-Rađenović, Nebojša Radunović, Helmut Heinle, Radisav Šćepanović and Ljiljana Gojković Bukarica.

Phytotehr Res 2014;28(9):1412-8. DOI: 10.1002/ptr.5145

M23	IF: 2.068

Abstract

The blood flow from the placenta to the fetus depends on human umbilical vein (HUV) vascular tone. ATP-sensitive K(+) (K(ATP)) channels link the metabolic state of the cell to membrane potential, and their activation in the HUV represents protection against hypoxia. The aims of our study were to assess the effects of resveratrol and naringenin on the HUV and to define the roles of K(ATP) channels in their effects. Serotonin or 100 mM K(+) were used for precontraction of the HUV without endothelium. The cumulative concentration-response curves were obtained by adding increasing concentrations of resveratrol or naringenin. Glibenclamide was used, in order to test the role of K(ATP) channels in its effect. Resveratrol induced more potent vasodilatation of serotonin- and 100 mM K(+)-precontracted HUV than naringenin. Glibenclamide induced significant shift to the right of the concentration-response curves of resveratrol and P1075 (a specific opener of K(ATP) channels). Western blotting showed that HUV expressed protein Kir6.1. Thus, resveratrol and naringenin produce dilatation of HUV. It seems that K(ATP) channels are involved in the relaxation of HUV induced by resveratrol, while naringenin seems to interact with other ion channels. The K(+) channel-independent mechanism(s) of these polyphenols could not be excluded

The weekend effect in patients hospitalized for upper gastrointestinal bleeding: a single-center 10-year experience

Maja Tufegdzic, Nikola Panic, Stefania Boccia, Stefano Malerba,Milutin Bulajic, Carlo La Vecchia, Aleksandra Sljivic, Jasna Trbojevic-Stankovic, Miodrag Krstic

European journal of gastroenterology & hepatology. 2014 Jul;26(7):715-20

M23	IF: 1.99

Abstract

This study was conducted to assess the possible weekend effect in patients with upper gastrointestinal bleeding (UGIB) on the basis of a 10-year single-center experience in Serbia.A retrospective analysis of hospital records in the University Clinic 'Dr Dragisa Misovic-Dedinje', Belgrade, Serbia, from 2002 to 2012 was conducted. Patients admitted for UGIB were identified, and data on demographic characteristics, symptoms, drug use, alcohol abuse, diagnosis and treatment were collected. Univariate and multivariate logistic regression were used to assess the association between weekend admission and the occurrence of rebleeding and in-hospital mortality. Analyses included 493 patients. Rebleeding occurred significantly more frequently on weekends (45.7 vs. 32.7%, P=0.004). Weekend admission [odds ratio (OR)=1.78; 95% confidence interval (CI): 1.15-2.74], older age (OR=1.02; 95% CI: 1.00-1.03), and the presence of both melaena and hematemesis (OR=2.29; 95% CI: 1.29-4.07) were associated with the occurrence of rebleeding. No difference between weekend and weekday admissions was observed for the in-hospital mortality rate (6.9% vs. 6.0%, P=0.70). Older age (OR=1.14; 95% CI: 1.08-1.20), presentation with melaena and hematemesis (OR=4.12; 95% CI: 1.56-10.90) and need for surgical treatment (OR=5.16; 95% CI: 1.61-16.53) were significant predictors of all-cause mortality. Patients with nonvariceal bleeding had significantly higher rebleeding rates on weekends (44 vs. 32.3%, P=0.013).There was no significant weekend effect in the mortality of patients admitted for UGIB, irrespective of the source of bleeding. Increased attention to older patients presenting with a more severe clinical picture is needed to prolong survival and prevent rebleeding.

Low-Frequency Repetitive Transcranial Magnetic Stimulation in the Right Prefrontal Cortex Combined With Partial Sleep Deprivation in Treatment-Resistant Depression: A Randomized Sham-Controlled Trial

Krstić J, Buzadžić I, Milanović SD, Ilic N, Pajic S, Ilic TV.

J ECT. 2014 Dec;30(4):325-31.

M23	IF: 1.387

Abstract:

Sham-controlled low-frequency repetitive transcranial magnetic stimulation (rTMS) was used in patients with pharmacoresistant major depression as an added treatment along with partial sleep deprivation (PSD). In addition, the potential predictive role of brain-derived neurotrophic factor genetic polymorphism on treatment response was analyzed.We recruited 19 female patients (48.3 ± 8.6 years old) with treatment-resistant unipolar major depression (Hamilton Depression Rating Scale [HDRS] score ≥20) who were on a stable antidepressant treatment. They received either 1-Hz rTMS or sham stimulation over the right dorsolateral prefrontal cortex (intensity of 110% of the threshold; 3000 stimuli per protocol; and 10 daily sessions). Additionally, PSD was applied once per week during the treatment. The patients were evaluated (HDRS and Clinical Global Impression Scale) by a blind rater at baseline (B) and after 2 and 3 weeks (W2 and W3) of treatment for short-term outcome. Long-term evaluations were performed after 12 (W12) and 24 weeks (W24) for patients who received active stimulation.Eleven patients in the active group showed a significant HDRS score reduction from 30.09 ± 3.53 (B) to 16.73 ± 5.71 (W3) compared to the lack of therapeutic response in the sham-treated patients. The long-term follow-up for the active group included 64% of the responders at W12 and 55% at W24. Full remission (HDRS ≤10) was achieved in 5 of 11 patients. Four of these 5 patients with long-term sustained remission expressed the Val66Val genotype.Our study suggests a clinically relevant response, persisting for up to 6 months, from 1-Hz rTMS over the right dorsolateral prefrontal cortex and PSD in patients with pharmacoresistant major depression. The brain-derived neurotrophic factor Val66Val homozygous genotype may be related to a better treatment outcome.

Left Ventricular Mechanics in Untreated Normotensive Patients with Type 2 Diabetes Mellitus: A Two- and Three-dimensional Speckle Tracking Study

Tadic M, Ilic S, Cuspidi C, Stojcevski B, Ivanovic B, Bukarica L, Jozika L, Celic V.

Echocardiography. 2014 Oct 7.doi: 10.1111/echo.12790. [Epub ahead of print]

M23	IF: 1.25

Abstract

BACKGROUND:
Our aim was to investigate left ventricular (LV) mechanics estimated by two- (2DE) and three-dimensional echocardiography (3DE) strains in subjects with type 2 diabetes mellitus (DM).
METHODS:
This cross-sectional study included 50 untreated normotensive DM subjects and 50 healthy controls similar by sex and age. All the subjects underwent adequate laboratory analyses and complete 2DE and 3DE examination.
RESULTS:
Left ventricular mechanics, assessed by 2DE, was impaired in all three directions. Global longitudinal 3DE strain was significantly decreased in the DM group in comparison with the controls (-17.8 ± 2.5 vs. -19.1 ± 2.7%, P = 0.014). Similar results were found for 3DE global circumferential strain (-18.9 ± 2.9 vs. -20.4 ± 3.2%, P = 0.01), 3DE global radial strain (40.3 ± 6.9 vs. 43.1 ± 7.3%, P = 0.035), and 3DE global area strain (-29.2 ± 3.7 vs. -31 ± 4%, P = 0.024). LV torsion was similar between the DM patients and the controls (2.1 ± 0.6 vs. 1.9 ± 0.5 °/cm, P = 0.073); whereas LV untwisting rate was significantly increased in the DM subjects (-114 ± 26 vs. -96 ±23 °/s, P < 0.001). A multivariate analysis showed that 3DE global longitudinal and area myocardial functions were associated with HbA1c independently of 3DE LV mass index.
CONCLUSION:
Left ventricular deformation obtained by 3DE is significantly impaired in the type 2 DM patients. HbA1c is independently associated with LV mechanics that implies that early anti-diabetic therapy and normalization of the fasting glucose level and HbA1c could impede further cardiac damage.

Why is functional capacity decreased in hypertensive patients? From mechanisms to clinical studies

Tadic M, Ivanovic B.

J Cardiovasc Med (Hagerstown). 2014 Jun;15(6):447-55.

M23	IF: 1.40

Abstract

The influence of arterial hypertension on functional capacity is poorly understood. Studies have shown that peak oxygen consumption has been reduced in hypertensive patients, but the mechanisms are unclear. Left ventricular systolic and diastolic dysfunction, as well as left ventricular hypertrophy, are associated with lower functional capacity in patients with arterial hypertension. Furthermore, some investigations found a significant relationship between right ventricular systolic function and functional capacity in the general population. The aim of this review was to summarize current knowledge about the mechanisms of reduced functional capacity in hypertensive patients, including the impact of systemic and pulmonary circulations, as well as the influence of the left and right ventricle on oxygen consumption. Additionally, we reviewed all clinical studies regarding functional capacity in thepopulation with arterial hypertension.

High-normal blood pressure, functional capacity and left heart mechanics: is there any connection?

Tadic M, Cuspidi C, Backovic S, Kleut M, Ivanovic B, Scepanovic R, Iracek O, Celic V.

Blood Press. 2014 Oct;23(5):315-21.

M23	IF: 1.60

Abstract

OBJECTIVE:
To evaluate the relationship between functional capacity and left ventricular (LV) and left atrial (LA) myocardial deformation, assessed by two- and three-dimensional (2DE and 3DE) strain analysis, in subjects with high-normal blood pressure (BP).
METHODS:
This cross-sectional study included 64 subjects with optimal BP and 75 subjects with high-normal BP of similar gender and age. All the subjects underwent a complete 2DE and 3DE examination and cardiopulmonary exercise testing.
RESULTS:
3DE global longitudinal strain was significantly lower in the group with high-normal BP than in the optimal BP group (- 20.1 ± 2.4 vs - 18.5 ± 2.3%, $p < 0.001$). Similar results were obtained for 3DE global circumferential strain (- 21.8 ± 2.6 vs - 19.3 ± 2.4%, $p < 0.001$), as well as for 3DE global radial strain (45.1 ± 8.8 vs 42.3 ± 7.2%, $p = 0.042$), and 3DE global area strain (- 30.1 ± 4.2 vs - 28.1 ± 3.8%, $p < 0.001$). LV twist was similar between the observed groups, whereas untwisting rate was significantly decreased in the subjects with high-normal BP (- 123 ± 30 vs - 112 ± 26°/s, $p = 0.023$). Peak VO2 was significantly lower in the high-normal BP group (30.8 ± 4 vs 28.3 ± 3.7 ml/kg/min, $p < 0.001$). 2DE LV ejection fraction ($\beta = 0.38$, $p = 0.014$), 2DE global longitudinal strain ($\beta = 0.35$, $p = 0.019$) and 3DE global longitudinal strain ($\beta = 0.27$, $p = 0.042$) were independently associated with peak VO2.
CONCLUSION:
LV and LA mechanics, as well as functional capacity are significantly impaired in the subjects with high-normal BP. LV and LA myocardial deformations are associated with peak oxygen uptake.

High-normal blood pressure impacts the right heart mechanics: a three-dimensional echocardiography and two-dimensional speckle tracking imaging study

Tadic M, Cuspidi C, Pencic B, Sljivic A, Ivanovic B, Neskovic A, Scepanovic R, Celic V.

Blood Press Monit. 2014 Jun;19(3):145-52.

M23	IF: 1.179

Abstract

OBJECTIVE:
The aim of this study was to examine the relationship between increasing blood pressure (BP) and right ventricular (RV) and right atrial (RA) mechanics using two-dimensional echocardiography (2DE) strain analysis and three-dimensional echocardiography (3DE).
METHODOLOGY:
This cross-sectional study included 58 individuals with optimal BP, 57 individuals with high-normal BP, and 59 recently diagnosed untreated hypertensive patients of similar age and sex distribution. Data were analyzed according to 24-h systolic blood pressure values (cutoff values were 120 and 130 mmHg). All individuals underwent complete 2DE and 3DE examination.
RESULTS:
The global longitudinal RV strain decreased gradually from controls, to high-normal BP individuals, to hypertensive patients, whereas systolic and early diastolic strain rates were similar between high-normal BP and hypertensive patients, but decreased in comparison with optimal BP individuals. The same trend was observed for the global longitudinal RA strain and systolic and early diastolic strain rates. 3DE examination revealed that RV volumes were increased in hypertensive patients in comparison with optimal BP individuals, which resulted in a lower 3DE RV ejection fraction in hypertensive patients. Multivariate analysis showed that the RV wall thickness was the only echocardiographic parameter that was, in the same time, independently associated with global RV and RA strain, and RV diastolic function.
CONCLUSION:
The right heart deformation is significantly impaired in individuals with high-normal BP. This subclinical impairment of RV and RA mechanics and function in high-normal BP individuals seems to be similar to the impairment found in recently diagnosed hypertensive patients.

Left atrial phasic function and mechanics in women with subclinical hypothyroidism: the effects of levothyroxine therapy

Tadic M, Ilic S, Ivanovic B, Celic V.

Echocardiography. 2014 Nov;31(10):1221-9.

M23	IF: 1.25

Abstract

BACKGROUND:
Left atrial (LA) mechanics has been poorly investigated in women with subclinical hypothyroidism (SHT), and the effect of levothyroxine therapy on LA deformation and function is unknown.
AIM:
To investigate LA phasic function and mechanics assessed by two-dimensional echocardiography (2DE) and speckle tracking in women with SHT, and to estimate the influence of levothyroxine therapy on LA remodeling.
METHODS:
We included 48 untreated women with SHT and 38 healthy control women of the same age. All the SHT patients received levothyroxine therapy and were followed for 1 year after euthyroid status was achieved. All the participants underwent laboratory analyses and complete 2DE examination.
RESULTS:
Left atrial total emptying fraction was significantly lower in the SHT patients at the baseline in comparison with the controls. LA passive emptying fraction gradually decreased from the controls, throughout the treated SHT patients, to the untreated SHT patients. LA active emptying fraction was lower in the controls than in the untreated and the treated SHT participants. 2DE LA longitudinal strain and systolic strain rate gradually decreased from the controls to the untreated SHT patients, whereas LA early diastolic strain rate significantly increased in the same direction. Late diastolic LA strain was lower in the controls than in the untreated and the treated SHT patients.
CONCLUSION:
Subclinical hypothyroidism significantly affects LA mechanics. Reservoir, conduit, and booster pump LA functions are all impacted by SHT. A 1-year levothyroxine therapy significantly improves, but does not completely restore LA phasic function and mechanics in the SHT patients.

Age as a prognostic factor in anaplastic thyroid cancer

Zivaljevic V, Tausanovic K, Paunovic I, Diklic A, Kalezic N, Zoric G, Sabljak V, Vekic B, Zivic R, Marinkovic J, Sipetic S

Int J Endocrinol. 2014;2014:240513

M23	IF: 1.515

Abstract

Background. Anaplastic thyroid cancer (ATC) is one of the tumors with the shortest survival in human medicine. Aim. The aim was to determine the importance of age in survival of patients with ATC. Material and Methods. We analyzed the data on 150 patients diagnosed with ATC in the period from 1995 to 2006. The Kaplan-Meier method and log-rank test were used to determine overall survival. Prognostic factors were identified by univariate and multivariate Cox regression analysis. Results. The youngest patient was 35 years old and the oldest was 89 years old. According to univariate regression analysis, age was significantly associated with longer survival in patients with ATC. In multivariate regression analysis, patients age, presence of longstanding goiter, whether surgical treatment is carried out or not, type of surgery, tumor multicentricity, presence of distant metastases, histologically proven preexistent papillary carcinoma, radioiodine therapy, and postoperative radiotherapy were included. According to multivariate analysis, besides surgery (P = 0.000, OR = 0.43, 95% CI = 0.29-0.63), only patients age (P = 0.023, OR = 0.68, 95% CI = 0.49-0.95) was independent prognostic factor of favorable survival in patients with ATC. Conclusion. Age is a factor that was independently associated with survival time in ATC. Anaplastic thyroid cancer has the best prognosis in patients younger than 50 years.

Risk factors for anaplastic thyroid cancer

Zivaljevic V, Slijepcevic N, Paunovic I, Diklic A, Kalezic N, Marinkovic J, Zivic R, Vekic B, Sipetic S.

Int J Endocrinol. 2014;2014:815070.

M23	IF: 1.515

Abstract

Background. Anaplastic thyroid cancer (ATC) is a form of thyroid cancer with very poor prognosis, but is fortunately quite rare. Its aetiology is unknown and not well researched. Aim. The aim of this study was to identify potential risk factors for ATC. Material and Method. Case-control study of 126 ATC patients (77 females and 49 males) and 252 controls individually matched by gender, age, and place of abode. In statistical analysis we used a Cox regression model. Results. Univariate logistic regression showed that the risk factors for ATC are low education level, type B blood group, goitre, other nonthyroid malignancies, diabetes, late menarche, and an early first pregnancy. Multivariate logistic regression analysis showed that independent risk factors for ATC are low education level (OR = 1.42, 95% CI = 1.09-1.86), type B blood group (OR = 2.41, 95% CI = 1.03-5.66), and goitre (OR = 25-33, 95% CI = 5.66-126.65). Conclusion. Independent risk factors for ATC are: low education level, type B blood group, and goitre.

Susceptibility to Helicobacter pylori infection: results of an epidemiological investigation among gastric cancer patients

Nikola Panic, Elena Mastrostefano, Emanuele Leoncini, Roberto Persiani, Dario Arzani, Rosarita Amore, Riccardo Ricci, Federico Sicoli, Stefano Sioletic, Milutin Bulajic, Domenico D' Ugo, Walter Ricciardi, Stefania Boccia

Molecular Biology Reports. 2014 Jun;41(6):3637-50

M23	IF: 1.96

Abstract

The aim of this study was to identify the clinical, demographic, lifestyle factors and selected genetic polymorphisms that affect the susceptibility towards Helicobacter pylori (H. pylori) infection in gastric cancer patients. Histological confirmed gastric adenocarcinoma cases that underwent curative gastrectomy between 2002 and 2012 were included. Gastric biopsy samples were obtained to determine the H. pylori status, and further cagA status and vacA m and s genotypes by polymerase chain reaction. Patients were interviewed with structured questionnaires, and blood samples were collected for EPHX1, GSTM1, GSTT1, IL1B, IL1-RN, MTHFR and p53 genotyping. Proportions were compared in univariate analysis, while the relation between putative risk factors and H. pylori status and genotype were measured using logistic regression analysis. One hundred forty-nine gastric cancer patients were included, of which 78.5 % were H. pylori positive. Among positive patients 50 % were cagA+, 72.5 % vacA m1 and 80.7 % vacA s1. The presence of cagA was less frequent among vacA m1 ($p = 0.031$) and vacA s1 ($p = 0.052$) subtypes. The presence of father history for any cancer was a significant risk factor for H. pylori infection [adjusted odds ratio (OR) = 8.18, 95 % confidence interval (CI) 1.04-64.55]. EPHX1 exon 3 T > C (OR = 0.35, CI 95 % 0.13-0.94), IL1B-511 T > C (OR = 0.38, CI 95 % 0.15-0.97) and IL1-RN VNTR (OR = 0.19, CI 95 % 0.06-0.58) polymorphisms were protective towards H. pylori infection in the univariate analysis. Wine consumption was associated with higher risk of carrying the H. pylori vacA m1 virulent subtype ($p = 0.034$). Lastly, cardiovascular diseases were less common among cagA positive subjects ($p = 0.023$). Father history of any cancer is a risk factor for H. pylori infection. Polymorphisms in IL1B-511, IL1-RN and EPHX1 exon 3 genes might be protective towards H. pylori infection.

Pedunculated Obstructive Lipoma of the Ileocecal Valve: A Case Report

Vekic B, Zivic R

Srp Arh Celok Lek. 2014 Nov-Dec; 142 (11-12): 721-723.

M23	IF: 0.169

Abstract

Introduction: Colonic lipomas are relatively common but they rarely progress to complete acute obstruction. Case Outline: We report a case of a 67-year-old woman with acute intestinal obstruction caused by a large pedunculated lipoma of the ileocecal valve. Preoperatively, the patient presented acutely with clinical and radiographic signs of small intestine ileus. A right hemicolectomy with subsequent terminolateral ileocolostomy was performed. The histopathological examination revealed a benign lipoma of the ileocecal valve which telescoped into the cecum and caused ileocolonic intussusception. The postoperative
course was uneventful and the patient was free of symptoms during a 12-month follow-up period. Conclusion: Since these benign tumors are frequently revealed by laparotomy and the definitive diagnosis is made on the basis of histopathological examination, we can conclude that extensive resections of the large intestine are justified in cases with acute clinical presentation.

The Role of Potassium Channels in the Vasodilatation Induced by Resveratrol and Naringenin in Isolated Human Umbilical Vein

Dragana Protic, Nebojsa Radunovic, Svetlana Spremovic-Radunovic,Vladimir Zivanovic, Helmut Heinle, Aleksandar Petrovic, and Ljiljana Gojkovic-Bukarica.

Drug development research 2014 (in press). DOI: 10.1111/ddr.21236

M23	IF: 0.734

Abstract

Potassium (K) channels have an important role in the maintenance of smooth muscle tone, and a variety of agonists can modify the tone by alteration of K-channel activity. The aim of our study was assess the effects of resveratrol and naringenin on K-channels of the vascular smooth muscle cells.
The segments of human umbilical vein (HUV) without endothelium were used as experimental model. Serotonin (100 μM) was used for precontraction HUV. K-channel inhibitors were added in the bath before resveratrol (1-100 μM) or naringenin (0.01-1 mM) in order to test the role of K-channels in its effect on HUV precontracted by serotonin.
Four-aminopiridine (1 mM), non selective blocker of voltage-dependent, tetraethylamonium (1 mM) and barium-chloride (1 mM), a non selective blockers of Ca-dependent and inward rectifire K-channels (respectively) induced significant shift to the right ($P < 0.05$) of the concentration-response curves of resveratrol. The effect of naringenin was antagonized with 4-aminopiridine (1 mM), only.
The 4-aminopiridine-, tetraethylamonium- and barium-chloride-sensitive K-channels are probably involved in the resveratrol vasodilatatory effect, while naringenin seems to affect 4-aminopiridine-sensitive potassium channels only. Some other mechanism of vasodilatatory action of these polyphenols did not excluded.

A laboratory-based study on patients with Parkinson's disease and seborrheic dermatitis: the presence and density of Malassezia yeasts, their different species and enzymes production

Arsic Arsenijevic VS, Milobratovic D, Barac AM, Vekic B, Marinkovic J, Kostic VS.

BMC Dermatol 2014 Mar 14;14:5.

M24	IF:

Abstract

BACKGROUND: Seborrheic dermatitis (SD) and Parkinson's disease (PD) are frequently associated conditions. Aims of this study were: to determine severity of SD, presence of different species and density of Malassezia yeasts; to assess yeast lipases and phosphatases production in vitro and to compare these results between SD patients with and without PD. METHODS: This case-control prospective study was conducted at the Dermatology and Neurology Units, Clinical Centre of Serbia and at the National Medical Mycology Reference Laboratory, University of Belgrade Medical School, Serbia. A total of 90 patients and 70 healthy controls (HC) were investigated: 60 patients with SD (SDN) and 30 patients with SD and PD (SDP). Culture-based mycological examination was carried out on lesional skin (LS) and non-lesional skin (NLS). A yeasts density was determined by counting the Malassezia colony forming units per tape (CFU/tape). Enzymes production by isolated Malassezia was investigated. RESULTS: The most patients with SD were male (76.7%; SDP and 63.3%; SDN) and the intensity of SD was dominantly severe or moderate (76.7%; SDP and 75%; SDN). The presence of Malassezia was high on LS in both groups (87.3%; SDP and 86.7%; SDN) (p=0.667).The highest yeasts density (mean CFU/tape=67.8) was detected on LS in 53% of SDP group and in 21.7% of SDN group (mean CFU/tape=31.9) ($p < 0.01$). The presence of negative cultures was lower in SDP group (13.3%) in comparison to HC and SDN groups (37% and 31.7%, respectively). Malassezia density on NLS in SDP group (mean CFU/tape=44.3) was significantly higher in comparison to SDN and HC (p=0.018). M. globosa was the most abundant species identified amongst isolates from the SDP group (42.3%) and exhibited high production of phosphatase and lipase in vitro. CONCLUSION: From this laboratory-based study a positive correlation between SD, PD, M. globosa incidence, high yeast density and high phosphatase and lipase activity was established. Our data lead to conclusion that local skin performance of PD patient's characterized with increased sebum excretion ratio play a role in SD by stimulation of yeasts replication and enzyme production.

Helicobacter pylori and pancreatic diseases

Milutin Bulajic, Nikola Panic, Johannes Matthias Löhr

World journal of gastrointestinal pathophysiology 11/2014; 5(4):380-3.

M24	IF:

Abstract

A possible role for Helicobacter pylori (H. pylori) infection in pancreatic diseases remains controversial. H. pylori infection with antral predomination leading to an increase in pancreatic bicarbonate output and inducing ductal epithelial cell proliferation could contribute to the development of pancreatic cancer via complex interactions with the ABO genotype, dietary and smoking habits and N-nitrosamine exposure of the host. Although the individual study data available so far is inconsistent, several meta-analyses have reported an increased risk for pancreatic cancer among H. pylori seropositive individuals. It has been suggested that H. pylori causes autoimmune pancreatitis due to molecular mimicry between H. pylori α-carbonic anhydrase (α-CA) and human CA type II, and between H. pylori plasminogen-binding protein and human ubiquitin-protein ligase E3 component n-recognin 2, enzymes that are highly expressed in the pancreatic ductal and acinar cells, respectively. Future studies involving large numbers of cases are needed in order to examine the role of H. pylori in autoimmune pancreatitis more fully. Considering the worldwide pancreatic cancer burden, as well as the association between autoimmune pancreatitis and other autoimmune conditions, a complete elucidation of the role played by H. pylori in the genesis of such conditions could have a substantial impact on healthcare.

The Effect of CYP, GST, and SULT Polymorphisms and Their Interaction with Smoking on the Risk of Hepatocellular Carcinoma

Stefania Boccia, Luca Miele, Nikola Panic, Federica Turati, Dario Arzani, Consuelo Cefalo, Rosarita Amore, Milutin Bulajic,Maurizio Pompili, Gianlodovico Rapaccini, Antonio Gasbarrini,Carlo La Vecchia, Antonio Grieco

BioMed Research International. 06/2014

M24	IF:

Abstract

Aim. The aim of our study was to assess whether selected single nucleotide polymorphisms of CYP1A1 and 2E1, GSTM1, GSTT1, and SULT1A1 influence susceptibility towards HCC, considering their interaction with cigarette smoking. Methods. We recruited HCC cases and controls among patients admitted to the hospital "Agostino Gemelli," from January 2005 until July 2010. Odds ratios (OR) of HCC were derived from unconditional multiple logistic regression. Gene-gene and gene-smoking interaction were quantified by computing the attributable proportion (AP) due to biological interaction. Results. The presence of any CYP2E15B variant allele (OR: 0.23; 95% CI: 0.06-0.71) and CYP2E16 variant allele (OR: 0.08; 95% CI: 0.01–0.33) was inversely related to HCC. There was a borderline increased risk among carriers of combined CYP1A12A and SULT1A1 variant alleles (OR: 1.67; 95% CI: 0.97–3.24). A significant biological interaction was observed between GSTT1 and smoking (AP = 0.48; 95% CI: 0.001–0.815), with an OR of 3.13 (95% CI: 1.69–5.82), and borderline significant interaction was observed for SULT1A1 and smoking (AP = 0.36; 95% CI: −0.021–0.747), with an OR of 3.05 (95% CI: 1.73–5.40). Conclusion. CYP2E15B and CYP2E16 polymorphisms have a favourable effect on the development of HCC, while polymorphisms of GSTT1 and SULT1A1 might play role in increasing the susceptibility among smokers.

RAD U ČASOPISU KOJI JE UKLJUČEN U BAZU PODATAKA MEDLINE

Identifying gaps between current and expected ICT competencies of nurses in Serbia

Paunic S, Stojkovic I.

Studies in health technology and informatics,205;2014: 186—190

Abstract

Introducing of ICT in the health care system in Serbia started 19 years ago and systematic training of nurses and technicians has not been realized yet. The primary objective of this paper is to determine the gap between the sets of ICT competencies of nurses and technicians acquiring education and experience and the necessary skill set required for their daily work. The qualitative research included questioning of the focus group of experts, and 400 nurses and technicians employed in secondary and tertiary health institutions in Serbia. Based on the analysis of existing literature we choose the Informatics competencies for nurses at four levels of practice (Staggers, Gassert, Curran, 2001), and for the purposes of this study, we used a list of competencies of the first, and partially of the second and third level**.** At the start, the group of 12 experts had the task to eliminate some of listed competencies, or to express the subjective expectations of the ICT competencies of nurses. After that, nurses and medical technicians were expected to grade, by Likert scale, their level of knowledge and skills for each of the 39 competencies, respectively. The answers were analyzed using measure of central tendency and distribution of results was done by median. Comparison of perceived competence of the nurses and the desired/expected level by managers shows that there is difference in 25 of the 39 offered statements. Managers expect that nurses are great users of administrative applications for staff scheduling and for maintaining employee records, while nurses declared that these programs they use relatively poorly or not at all. The larger gap is also observed when it comes to computer skill for documenting patient care - experts expect that nurses do it well, and nurses, again, estimate that their documentation skills are relatively poor. The same situation is with use of ICT for patient education. It can be concluded that further training is required in the field of ICT, either through additional training in the workplace, either through formal education. Due to the fact that ICT competencies are becoming part of the basic, functional sets, it should be considered the correction of curricula of secondary schools for nurses.

Keywords. Competencies, management, ICT, Nurses

Techniques for endoscopic ultrasound-guided fine-needle biopsy.

Nikola Panic, Alberto Larghi

Gastrointestinal endoscopy clinics of North America 01/2014; 24(1):83-107.

Abstract

Although endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) is the method of choice to obtain samples to reach definitive diagnosis of lesions of the gastrointestinal tract and of adjacent organs, it cannot fully characterize certain neoplasms. The lack of cytology expertise has hindered the dissemination of EUS, limiting its widespread use. The obtainment of a tissue specimen through EUS fine-needle biopsy (EUS-FNB) may overcome the limitations of EUS-FNA. EUS-FNB is expected to move the practice of EUS from cytology to histology, expanding the use of EUS and facilitating targeted therapies and monitoring of treatment response in a more biologically driven manner.

CEO RAD U ČASOPISU KOJI NIJE UKLJUČEN U PRETHODNO NAVEDENE BAZE PODATAKA

Kontinuirana medicinska edukacija - prilagođavanje organizacije novim zahtevima

Paunic Sanja, Cvjetkovic Sanja

Inspirium, mart 2014; UINARS;9:8-12

Sažetak

Moderan menadžment kao imperativ ispred sebe postavlja investiranje u znanje što podrazumeva stalno zanavljanje baze naučenog tj. kontinuitet promena. Kontinuirana medicinska edukacija (KME) se stoga javlja kao neophodan oblik očuvanja aktuelne baze znanja u vremenu nezaustavljive ekspanzije dostignuća savremene medicinske prakse. Kada se u Srbiji KME formalno institucionalizovala 2007. godine, bilo je potrebno prilagoditi organizaciju novim zahtevima.
KBC "Dr Dragiša Mišović-Dedinje" sa višedecenijskom tradicijom u edukaciji, imao je zadatak da se u najkraćem vremenu prilagodi novoj legislativi. Formirana je Služba za obrazovnu i naučnoistraživačku delatnost sa Odsekom za KME i doneti interni pravilnici kojima su uređeni postupci u vezi sa stručnim usavršavanjem. U narednim godinama prate se pokazatelji realizacije programa KME, ali i zadovoljstvo zaposlenih u odnosu na mogućnosti edukacije.
Uprkos dobrim pokazateljima rada Odseka za KME i konstantnim prilagođavanjem organizacije rada Službe potrebama zaposlenih, iz godine u godinu nije se u značajnoj meri menjalo zadovoljstvo zaposlenih u odnosu na mogućnosti edukacije.
Prilagođavanje organizacije novim zahtevima mora biti pravovremeno, a upravljanje promenama planski, ciljana i sistematična akcija. Stoga, organizacija znanja, kojoj savremeni menadžeri teže, mora biti i organizacija koja uči i organizacija koja podučava.

In Vivo ispitivanje antiaritmijske aktivnosti novosintetisanih derivata propafenona u akonitinskom modelu srčane aritmije kod pacova.

Branka Ivković, Ljiljana Gojković-Bukarica, Radmila Novaković, Vitomir Ćupić, Sote Vladimirov, Vladimir Živanović i Radisav Šćepanović.

Veterinarski glasnik 2014 (in press)

Sažetak

Primenom akonitinskog testa, u *in vivo* eksperimentima na pacovima u dubokoj anesteziji, ispitivan je antiaritmijski potencijal novosintetisanih fluoriranih derivata propafenona. Životinje su podeljene u četiri eksperimentalne grupe. Prva grupa (akonitinska grupa) je tretirana akonitinom u dozi od 60 μg/kg koja dovodi do vidnog poremećaja srčanog ritma u kratkom vremenskom periodu. Kao parametar za registrovanje poremećaja srčanog ritma uzeta je pojava ventrikularne ekstrasistole (VES). Ostale tri eksperimentalne grupe činile su životinje na kojima je ispitivan potencijal propafenona i fluoriranih derivata propafenona da zaustave aritmiju indukovane *i.v.* injekcijom akonitina (60 μg/kg). Propafenon, kao i 5OF derivat, nisu uspeli da konvertuju poremećen srčani ritam (preživljavanje životinja je 0 %). Prilikom aplikacije 5PF derivata u dozi od 6 mg/kg životinje su preživele, uz povremeno uspostavljanje sinusnog ritma.

Vaskularni pristupi na hemodijalizi

Dušanka Sunajko

Nefrodijal, dec 2014.

Sažetak

Hemodijaliza predstavlja terapijski postupak vantelesnog pročišćavanja krvi od produkata metabolizma kroz polupropustljivu membranu. Jedan od uslova za kvalitetnu dijalizu je dobro kreiran vaskularni pristup.
Vaskularni pristup podrazumeva pristup krvotoku bolesnika koji omogućava da se dovoljna količina krvi dopremi do dijalizatora i potom, nakon prečišćavanja, vrati u organizam. Cimino I Brescia su 1966.godine prvi primenili tzv. ”unutrašnju A-V fistulu” i napravili revoluciju u oblasti vaskularnih pristupa.
Vaskularni pristupi mogu biti: privremeni i trajni.
Privremeni vaskularni pristup ima ulogu da obezbedi pristup krvotoku za kraći vremenski period, dok se ne oporavi bubrežna funkcija kod akutne ranalne insuficijencije ili ne kreira trajni vaskularni pristup. U tu svrhu najčešće se koriste dvolumenski centralni venski kateteri.
Trajni vaskularni pristupi su: arterijsko-venska fistula, arterijsko.venski graft, venski kateteri(najčešće je u upotrebi Hickmanov kateter.).
Nakon formiranja vaskularnog pristupa neophodno je preduzeti odgovarajuće mere u cilju prevencije potencijalnih komplikacija. Neke od njih, kao što su pažljivo manipulisanje s istim tokom hemodijaliznog tretmana, spadaju u domen rada med.sestre/tehničara, dok mnoge preventivne mere mogu preduzeti i sami bolesnici za šta ih med.sestra mora edukovati. Iz ovoga vidimo da edukacija predstavlja važan segment u radu med.sestre u očuvanju i nezi vaskularnih pristupa kod bolesnika na dijalizi.

IZVODI U ZBORNICIMA MEĐUNARODNIH SKUPOVA

A Factors Influencing Cardiopulmonary Exercise Testing in Hypertensive Patients with Obstructive Sleep Apnea Syndrome

Backović S. Celic V. Popovic-Pencic B. Stojcevski B, Suzic-Lazic J,Polic T, Majstorović A, Andric A, Šljivić

NEUROCARD 2014 International Symposium on Neurocardiology Scientific Program and Book of Abstracts. 2014 :110.

Abstract

Obstructive sleep apnea (OSA) is characterized by repetitive nighttime obstructions of the upper airway that induce hypoxemia, hypercapnia, sympathetic activation, and arousals. This disorder induces cardiovascular autonomic imbalance and contributes to the development of hypertension. The presence of OSA could cause impairment in functional capacity through impairment of left ventricular diastolic function or aerobic metabolism in peripheral muscles.

The aim of the study was to examine the influence of OSA in hypertensive subjects on functional capacity, estimated by maximal oxygen consumption (VO2max) and anaerobic threshold (AT).

Method: Total of 74 hypertensive patients (aged 30-60 years) was included in the study. They were divided into 2 groups: 42 subjects with OSA (OSAG) and 32 without this disorder (control group, CG). They underwent physical examination, laboratory analysis, ambulatory blood pressure monitoring, echocardiographic examination, cardiopulmonary exercise testing and polysomnographic testing.

Results: Functional capacity was significantly higher in CG, estimated by VO2 max (26.7 ± 5.9 vs. 30.3 ± 5.5 ml/kg/min; p = 0.01) and also oxygen consumption on AT (p = 0.04). There were also significant differences in apnea/hypopnea index (AHI; 23.7±15.9 in OSAG; 3.6 ± 1.3 on KG; p < 0,001), as well as desaturation index (ODI; 13.3 ± 11.7 vs. 2.5± 1.6; p<0.001). Linear regression analysis revealed that the most important independent predictor of attenuated VO2max in hypertensive patients with OSA were ODI (p = 0.03) and waist circumference (p = 0.01).

Conclusion: The presence of OSA in hypertensive patients is significantly related to impaired functional capacity. The most important predictors of impaired functional capacity were ODI and waist circumference.

Heart rate variability – diagnostic and prognostic value in patients with sleep related breathing disorders.

Pencic Biljana

NEUROCARD 2014 The Sixth International Symposium on Neurocardiology Scientific Program and Book of Abstracts. 2014 :97.

Abstract

Heart rate variability (HRV) as a noninvasive diagnostic method is widely used in order to evaluate sympathetic and parasympathetic activity. It has been established that HRV may provide important diagnostic and prognostic information about autonomic function in normal subjects and patients suffering with cardiovascular diseases. Numerous studies have focused on the relationship between HRV and heart failure or coronary artery disease, including risk factors such as diabetes mellitus, arterial hypertension.

The risk of cardiovascular disease is associated with impaired HRV. It has been revealed that sleep related breathing disorders (SRBD) also alter cardiovascular regulation leading to increased risk for cardiovascular disease. However the data about the influence of SRBD on HRV are partly conflicting. The pathophysiological mechanisms that impair HRV in patients with obstructive sleep apnea mechanism can be explained by the increase of sympathetic tone due to repetitive apneas, hypoxias and arousals during sleep.

According to some investigations frequency domain parameters exactly low frequency/high frequency ratio or very low frequency/low frequency ratio were found to be the most important parameter to estimate the degree of SRBD while others suggested that time-domen analysis, especially the mean normal-to-normal RR interval reflected the overnight simpathovagal balance. Data on parasympathetic function during sleep obtained by classical power spectrum analysis on HRV are different.

Complex fluctuation of heart rate associated with sleep stages, SRBD and /or other heart disorders indicates that new recording techniques with sophisticated analysis methods should be applied to future large study groups in order to reveal the relevant information about the exact influence of SRBD on HRV.

Usefulness of combined haemoglobin and NT-proBNP assessment at discharge in predicting 30-day and long term rehospitalization and death in patients with acute heart failure

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Supplement: Abstracts of the Heart Failure Congress 2014 and the 1st World Congress on Acute Heart Failure, Athens, Greece, 17–20th May 2014
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Poster Session 3. 16: 226–308. doi: 10.1002/ejhf.93_18.

Abstract:

Purpose:
To compare short and long-term prognostic role of admission (A) and discharge (D) haemoglobin (Hgb) vs NT-proBNP levels in patients hospitalized for acute heart failure (AHF).
Methods:
317 AHF patients (mean age74.7 ± 9.4 years) were enrolled at two aca-demic centres in Rome and Belgrade. In all patients N-terminal pro-hormone brain natriuretic peptide (NT-proBNP) and Hgb levels were assessed at A and D. Based on Hgb level patients were divided in two groups: Hgb<12.0 g/dl (anaemic) and Hgb ≥ 12.0 g/dl (non-anaemic). To evaluate death and rehospitalization, a follow-up phone-call was performed 1, 6, 12 months after D.
Results:
According to A and D Hgb level, anaemia was present in 55% and 62% AHF patients, respectively. For 30-day follow-up lower D Hgb value was associated with higher NT-proBNP levels (both at A and at D), and with increased
risk for rehospitalization (OR 0.96, p% = 0.004). For every 1g/l Hgb decrease, the odds of rehospitalization increased by 4.1%, while NT-proBNP showed greaterpower (휒 2% = -0.03) in predicting death. Area under the curve for D Hgb was 0.74 (p < 0.001, 95% CI 0.72-0.93) for death, while for NT-proBNP it was 0.82 (p% = 0.006, 95% CI 0.72-0.93). During 6 months follow-up, patients discharged with anaemia had significantly increased mortality (p% = 0.032) (Fig. 1). A and D Hgb independently significantly contributed to the increased risk of one-year rehospitalization (A Hbg:OR 0.98, p% = 0.002; D Hbg:OR 0.97, p < 0.001).
Conclusions:
In AHF patients, the presence of anaemia at D is a significant independent predictor for 30-day and long-term rehospitalization. Compared to Hgb, NT-proBNP seems to be a better predictor for mortality. In AHF patient D Hgb
and NT-proBNP should be assessed together to detect higher risk patients for events

Gram-positive and gram-negative bacteria strains isolated at clinical departments of the University Hospital Center "Dr Dragisa Misovic-Dedinje" in 2013: distribution and resistance.

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The 6th Eurasia Congress of Infection Diseases on 24-27/9/2014 in Belgrade, Serbia.

Abstract

Background: Within the increasing use of antibiotics, the microbial resistance has been very serious problem in Republic of Serbia. In order to provide guidance data for clinical reasonably using of antibiotics, we analyzed the distribution and resistance results of common clinical isolates at University hospital center "Dr Dragisa Misovic-Dedinje" in 2013.

Methods: We exclude the same strain of the same patients. CLSI performance standards (2013) were used for antimicrobial suspectibility testing . The WHONET 5.6 was used to analyzed data.

Results: A total 2171 strains were separated within one year. The top five strains of gram-negative bacilli were *Escherichia coli (15.2%*, ESBL positive -35.9%*)*, *Klebsiella pneumoniae* (9.1%, ESBL postive - 52.3%), *Proteus mirabilis* (6.4%, ESBL postive-1.4%), *Pseudomonas aeruginosa* (5.9%) and *Enterobacter cloacae* (3.7%). In gram-negativ cocci the first strain was *Acinetobacter baumannii* (3.1%). The top five strains of gram-positive cocci were coagulase-negative *Staphylococcus* (8.8 %, *S. epidermidis* - 4.7%), *Enterococcus spp*. (8.4%; *Enterococcus faecalis* 6.8%, *Enterococcus faecium* 1.6%, VRE 0.5%), *Staphylococcus aureus* (7.4%, MRSA 1.3%, VRSA 0%) and *Streptococcus agalactiae* (3.4%). The highest resistance was registered in *Enterococcus faecium*, > 80 % of which were resistant to all available antibiotics but sensitive to tigecycline, linezolid (100%), teicoplanin and vancomycin (70%). Also, *Acinetobacter baumannii* were found to be > 90 % resistant to the beta-lactam antibiotics, fluoroquinolones and gentamicin, but sensitive to colistin (100%), tigecycline (60 %) and amikacin (50%). *Pseudomonas aeruginosa* strains exhibited a high resistance to fluoroquinolones (50%), gentamicin (50%), aminopenicillins, almost all cephalopsorins (100 % both), and a lower resistance to carbapenems (40-50 %), cefepime (20 %), ceftazidime (25%) and amikacin (30%). *Klebsiella pneumoniae* strains were resistant to 3rd generation of cephalosporins, fluoroquinolones, aminopenicillins (> 80%), gentamicin (60 %) and sensitive to colistin (100%), amikacin (80%), imipenem, meropenem, doripenem (80%), and tigecycline (90%).

Conclusions: In our University Hospital Center *Enterococcus faecium* and *Acinetobacter baumannii* have been emerging problems in 2013 that require special attention. Fortunately the number of these bacteria strains is small.

The analysis of 70 cases of hospital infection at Internal medical clinic of University Hospital Center "Dr Dragisa Misovic-Dedinje"

Dalibor Dragisic, Vladimir Zivanovic, Vera Celic, Teodora Vitorovic, Nenad Milanov, Ljiljana Gojkovic Bukarica, Radisav Scepanovic

The 6th Eurasia Congress of Infection Diseases on 24-27/9/2014 in Belgrade, Serbia.

Abstract

Aim: To undarstand the distribution and characteristics of hospital infection at Internal clinic of University Hospital Center "Dr Dragisa Misovic-Dedinje" (Belgrade), in order to get information for the prevention and control of hospital infection.
Methods: Surveillance of cases of hospital infection occured from June of 2013 to June of 2014 used retrospective method by the Hospital infection control staff. The hospital self designed forms had been applied including patient's general information, infection site, pathogens and antibiotic use.
Results: The cases of hospital infections occured was 70 for 69 patients at 7 wards. An average infection rate was 1.01%. The infection patients were female 63.3% and male 36.7%. The average age was 72 years (range 53-93). The infection site were blood (96%), urinary tract (3%) and skin (1 %). The top five pathogens were coagulase-negative *Staphylococcus* (21.4 %), *Enterococcus spp*. (14.3%), *Klebsiella pneumoniae* (14.3%), *Escherichia coli* (8.5%) and *Acinetobacter baumannii* (8.5%). The highest resistance was registered for fluoroquinolones, gentamicin, beta-lactam antibiotics, including 3rd generation of cephalosporins and carbapenems. In contrast, the bacteria strains were highly sensitive to linezolid, teicoplanin, vancomycin and tigecycline (100%). *Klebsiella pneumoniae* and *Acinetobacter baumannii* were found to be 100% sensitive to colistin.
Conclusions: The data above showed that distribution of hospital infections had relationship with gender. The blood infection was dominant. The top five pathogens were multidrag resistent. Monitor the departments with high infection rate and use the antimicrobial agents reasonably can reduce the hospital infection rate effectively.

Prevalence of multidrug-resistant Klebsiella species in a „Dr D.Misovic University hospital“

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The 6th Eurasia Congress of Infection Diseases on 24-27/9/2014 in Belgrade, Serbia.

BACKGROUND: The Gram-negative pathogenic bacteria Klebsiella produce the extended spectrum β-lactamase (ESBL) and cephalosporinase enzymes and are the major causes of hospital acquired (HA) infections and epidemics.
METHODS: The prevalence of multidrug resistance among of K. pneumoniae isolated from clinical samples of patients with infections over a period of 12 months in the hospital was recorded, along with the sensitivity patterns to 35 antibiotics, including third-generafion cephalosporin and fluoroquinolone antibiotics, using the disk-diffusion method and dilutin method MIC on VITEK®2. CLSI performance standards (2013) were used for antimicrobial suspectibility testing. The WHONET 5.6 was used to analyzed data.
RESULTS: A total 2171 strains were separated within one year. Of 197 (9,1% of all isolates) K. pneumoniae isolates, 117 (52.3%) were ESBL positive and 157 were independently fluoroquindone resistant. Klebsiella pneumoniae strains were resistant to 3rd generation of cephalosporins, fluoroquinolones, aminopenicillins (> 80%), gentamicin . %) and sensitive to colistin (100%), amikacin (80%), irnipenem, meropenern, doripenem (80%), and tigecycline (90%). The HA samples yielded more isolates than the community acquired (CA) samples for each species. The ESBL-producing and fluoroquinolone-resistant K. pneumoniae strains were in the HA/CA samples. The minimum inhibit, concentration values of the third-generation cephalosporins: cefotataxime and ceftazidime and the fludoquindones: ciprofloxacin and levo-floxacin against both species of Klebsiella confirmed the resistance in the current/coveted treatment options.
CONCLUSIONS: Antimicrobial resistant organisms are considered one of today, most serious global threats to human health. Patients with other bacterial infections had a relatively higher probability of infection with ESBL-producing and fluoroquinolone-resistant Klebsiella strains. The data presented here highlight the alarming state of Klebsiella infection dynamics in our hospital and adjoining communities.
Keywords: MDR, Klebsiela, antibiotics

IZVODI U ZBORNICIMA NACIONALNIH SKUPOVA

Procedura za rad defektologa-specijalnog pedagoga u zdravstvu

Milošević Jasmina, Stamenković Anita

Zbornik rezimea stručno-naučnog seminara sa međunarodnim učešćem „Dani defektologa Srbije 2014“ (str. 73). Beograd: Društvo defektologa Srbije

Sažetak

Defektolog-specijalni pedagog u zdravstvenom sistemu obavlja određene poslove zdravstvene zaštite uređene Zakonom o zdravstvenoj zaštiti. U zdravstvenim ustanovama ili privatnoj praksi defektolog-specijalni pedagog, kao zdravstveni saradnik, sprovodi mere i aktivnosti u preventivnim, dijagnostičkim, terapijskim i rehabilitacionim protokolima sa osnovnim ciljem da se ostvari najviši mogući standard zdravlja stanovništva. Svrha primene procedure za rad defektologa-specijalnog pedagoga je definisanje procesa sprovođenja i unapređenja zdravstvene zaštite dece i porodice, njihova edukacija o tematskim zdravstveno-vaspitnim sadržajima i primena znanja i veština u specifičnoj komunikaciji sa bolesnim detetom i njegovim okruženjem. Procedurom je obuhvaćen individualni i grupni savetodavni rad sa pacijentima i primena posebnih preporuka i prilagođenih edukativnih programa. Sagledavanje i rešavanje različitih vrsta problema zahteva multidisciplinarni pristup i efikasnu kordinaciju zdravstvenih službi i drugih sektora u zajednici. Stručno osposobljavanje i usavršavanje ovog profila treba da bude sveobuhvatno i organizovano na svim nivoima zdravstvene delatnosti. Defektolog-specijalni pedagog aktivno učestvuje i sprovodi kontinuiranu medicinsku edukaciju za zdravstvene radnike i saradnike u vidu akreditovanih progama od strane Zdravstvenog Saveta Srbije. Prema dostupnim podacima broj zaposlenih defektologa-specijalnih pedagoga u sistemu zdravstvene zaštite je nedovoljan. Težnje i izazovi ove profesije treba da budu poboljšanje kvaliteta rada i povećanje broja zaposlenih stručnjaka ovog profila u zdravstvu.

Ključne reči: procedura, defektolog-specijalni pedagog, zdravstvo

Psihosocijalna podrška porodici deteta sa astmom

Jasmina Milošević, Jasmina Todorović

Zbornik rezimea III stručno-naučnog skupa sa međunarodnim učešćem „Aktuelnosti u edukaciji i rehabilitaciji osoba sa smetnjama u razvoju“ (str. 55). Beograd: Resursni centar za specijalnu edukaciju.

Sažetak

Pružanje podrške porodici u razvijanju i negovanju zdravstvene kulture ima edukativni karakter, dok savetodavne aktivnosti sa socio-vaspitnim, a često i terapijskim karakterom, pružaju roditeljima pomoć u pogledu informisanja i jačanja kompetencija porodice. Saznanje da je dete obolelo od hronične bolesti izaziva ozbiljnu krizu u funkcionisanju porodice. Nakon početnog šoka i faze negiranja, roditelji sve svoje snage usmeravaju na traganje za lekom. Taj proces dodatno traumatizuje i dete i porodicu. Kompletna porodica mora da prođe sve faze suočavanja sa bolešću. Astma je opstruktivna bolest disajnih puteva i najčešća hronična bolest u dečijem uzrastu. Učestalost dečije astme u Srbiji iznosi 7%, sa tendencijom porasta, što ukazuje na neophodnost saradnje svih relevantnih službi, profesionalaca i porodice. Bolest ometa skladan psihosocijalni razvoj deteta i nameće specifične probleme obolelima, čitavoj porodici i društvu u celini. Tretman dece i savetodavni rad sa porodicom podrazumeva posebne preporuke, prilagođene edukativne programe, adekvatne terapijske protokole, poseban režim ishrane, primenu korektivno podsticajnih vežbi i kontinuirano praćenje toka oboljenja, uz aktivno uključivanje deteta i njegove porodice. U KBC “Dr Dragiša Mišović-Dedinje” je tokom 2014. godine sprovedeno anketiranje roditelja čija su deca obolela od astme, sa ciljem analiziranja potreba porodice, kako bi proces pružanja posebne podrške i pomoći porodicama bio sveobuhvatan. Rezultati pokazuju da je 94% anketiranih roditelja imalo stav o neophodnosti dodatnog i specifičnog osnaživanja porodice, kroz kontinuiranu tematsku edukaciju. Za kvalitetno planiranje usluga i programa zdravstvene zaštite dece neophodna je istrajnost, strpljivost i human postupak u pogledu lečenja i psihosocijalnog podsticaja porodice. Očuvanje porodičnog zdravlja zahteva međusobno poverenje i uvažavanje stručnjaka i porodice, kroz kontinuiran i partnerski odnos, efektnu i efikasnu pomoć čitave zajednice, a kakva i kolika će ta pomoć biti umnogome zavisi od zdravstvene politike društva.

Ključne reči: porodica, porodično zdravlje, zdravstvena politika

Individualni pristup u tretmanu nikotinske zavisnosti i prevencija relapsa – prikaz slučaja

Milošević Jasmina, Todorović Jasmina

Zbornik rezimea VIII međunarodnog naučnog skupa „Specijalna edukacija i rehabilitacija danas“ (str. 98). Beograd: Fakultet za specijalnu edukaciju i rehabilitaciju.

Sažetak

Dominantna teorijska znanja o uticaju pušenja na zdravlje pokazuju da svaki deseti čovek na planeti umire od posledica pušenja, a procenjuje se da će 2030. godine umirati svaki šesti. Jedna od mera kontrole upotrebe duvana jeste odvikavanje od pušenja, a obezbeđivanje stručne pomoći u kontinuiranom tretmanu sa pušačima predstavlja važnu javno-zdravstvenu delatnost. Individualni pristup u tretmanu odvikavanja od pušenja prvi je primenio Dorsej 1936. godine, koristeći metod sa lobelinom. Individualnim programom postiže se bolja samokontrola i aktivno uključivanje pušača u celokupni proces, precizira se pušački status, uredno se evidentiraju apstinencijalne krize i razvijaju tehnike za preveniranje ranog i odloženog relapsa. Tokom čitavog individualnog pristupa odvikavanja od pušenja vodi se medicinska dokumentacija, na osnovu koje se vrši praćenje i evaluacija savetodavnog rada sa pušačima. Takođe, kreira se bazični program promene ponašanja (PPP), koji podrazumeva promene ponašanja pušača u odnosu na okolinu, ambijent i sopstveni stil života.
Pacijentkinja dolazi na tretman odvikavanja od pušenja usled zdravstvenih tegoba, ali i zbog negativnog uticaja duvanskog dima na zdravstveno stanje njene kćerke, koja boluje od astme. Inicijacija pušenja datira iz perioda adolescencije, pacijentkinja puši preko 20 godina, više od 20 cigareta dnevno i par puta je pokušavala da prestane sa pušenjem. Na Fagerstromovom testu ostvaruje skor viši od šest, što ukazuje na visoki stepen nikotinske zavisnosti, sa procenom velikog prisustva apstinencijalnih simptoma. Rezultati kliničkog pregleda, testiranja i anamneze sagledani su zajedno sa pušačem i izrađena je strategija istrajavanja u odvikavanju od pušenja. U prvih 30 dana sa pacijentkinjom su ostvarivani svakodnevni telefonski kontakti, a po potrebi dolazi na savetodavni razgovor radi psihološke podrške, korekcije programa i prevencije relapsa. Zbog čestih apstinencijalnih kriza, tretman je sprovođen 2 do 3 puta nedeljno. Posle šest meseci apstinencije, pacijentkinja je ponovo propušila, a par meseci nakon toga javlja se sa željom da ponovo pokuša sa odvikavanjem od pušenja.

Ključne reči*: nikotinska zavisnost, individualni pristup, odvikavanje od pušenja*

Tiroidna hirurgija kod gerijatrijskih pacijenata

Živić R, Vekić B, Radovanović D, Perunović R, Radibratović S.

Treći srpski kongres o štitastoj žlezdi, Zlatibor, Medicinski Glasnik 2014; 30.

Sažetak

Uvod i cilj: Učestalost benignih tiroidnih oboljenja i agresivnost karcinoma štitaste žlezde raste sa starošću. Sobzirom na činjenicu da starost pacijenta predstavlja nezavisni faktor rizika za komplikacije nakon opštehirurških operacija, cilj ovog rada je bio da ispitamo bezbednost tiroidne hirurgije kod pacijenata starijih od 65 godina. Metod rada: Retrospektivno su pregledane istorije bolesti svih pacijenata operisanih zbog oboljenja štitaste žlezde na hirurškoj klinici KBC „Dr Dragiša Mišović-Dedinje“ u periodu od 2011. do 2013. godine koji su stariji od 65 godina. Analizirani su komorbiditeti, patohistološki izveštaji, tip operacija, mortalitet, postoperativne komplikacije i dužina hospitalizacije pacijenata. Rezultati: Od ukupno 378 pacijenata operisanih u ovom periodu, 87 (23,02%) je imalo 65 ili više godina. Definitivnim patohistološkim pregledom je u 19 (21,8%) slučajeva nađeno da se radi o karcinomu štitaste žlezde. Totalna tiroidektomija izvedena je u 69 slučajeva od kojih je kod šest pacijenata urađena i centralna disekcija vrata, loboistmektomija kod deset i totalizacija kod recidiva polinodoznih struma u osam slučajeva. Mortaliteta nije bilo. Postoperativne komplikacije javljale su se u sličnom procentu kao u ostaloj populaciji (pareza rekurensa 2,29%: 2,65%; hipokalcemija 14,9%: 9,5%). Dužina hospitalizacije je bila nešto duža među gerijatrijskim pacijentima u odnosu na ostalu populaciju (1,51 dan: 1,1 dan). Zaključak: Uz pažljivu preoperativnu pripremu, pravilno postavljene hirurške indikacije i adekvatnu operativnu tehniku, tiroidna hirurgija kod pacijenata starijih od 65 godina može se smatrati bezbednom. Starost pacijenta sama za sebe ne bi trebalo da bude kontraindikacija za ovaj tip hirurgije.

Da li sestra može biti kopilot? CR menadžmet

Ivanković Sanja

Knjiga predavanja i sažetaka VI Kongresa UINARS, sept 2014, Niš: 111

Sažetak

Menadžment članova posade ili upravljanje članovima kokpita (Crew resource management, cockpit resource management - CRM) je skup postupaka obuke za primenu u sredinama gde ljudska greška može imati fatalne posledice. Pre svega koristi se za poboljšanje bezbednosti u vazduhu i fokusira se na interpersonalne komunikacije, liderstvo i donošenje odluka u pilotskoj kabini, ali je svoju primenu našao u svim sferama gde se donose kritične odluke: kontrola letenja, rukovanje brodom, protivpožarna zaštita, a u medicini se koristi u operacionim salama.
Nakon 20 godina uspešne primene u avio industriji, zdravstveni sistem se za CRM zainteresaovao kada je američki Institut za medicinu preporučio korišćenje ovog modela kako bi se unapredila bezbednost i smanjio rizik od greške. U stvari, komunikacione greške su najčešći uzrok neželjenih događaja i operacije sa pogrešne strane u SAD. Iako se ulažu značajni napori za poboljšanje bezbednosti pacijenata kroz unapređenje timskog rada, ne postoji potvrđeni alat za naučno merenje timskog rada u hirurškom okruženju .
U radu će biti prikazano publikovano istraživanje sprovedeno u 60 operacionih sala različitih bolnica u SAD koje prikazuje način ocenjivanja i merenja uspešnosti međusobne komunikacije članova operativnog tima. Takođe biće prikazane metode i tehnike efikasnog treninga timskog rada kojima se aktivno uključuju svi članovi zdravstvenog tima (sastanci, ček liste,komunikacione tehnike koje podstiču sredinu uzajamnog poštovanja).
Da bi unapredili CRM u operacionoj sali, razvijeni su i drugi alati kojima se poboljšava bezbednost pacijenata, poput "crne kutije". U ovom slučaju patentirana "crna kutija" je digitalni sistem za arhiviranje kompletnog operativnog procesa i okruženja uključujući monitoring nad aparatima, koja ima za cilj da omogući analizu svih podataka i potencijalne studije operativnog učinka, intraoperativnih grešaka, timskog rada i komunikacije.
Zaključak sprovedenih istraživanja je da postoje značajne razlike u percepciji timskog rada u operacionoj sali, sa stanovišta lekara i stanovišta medicinskih sestara. Imajući u vidu značaj komunikacije i saradnje u kontekstu bezbednosti pacijenta, zdravstvene ustanove bi trebale da obrate posebnu pažnju na merenje i unapređenje timskog rada putem naučno potvrđenih metoda.
Ključne reči: komunikacija, operaciona sala, bezbednost, timski rad, menadžment

Pacijenti pitaju Google

Sanja Ivanković

Knjiga predavanja i sažetaka VI Kongresa UINARS, sept 2014, Niš: 123

Sažetak

Milioni ljudi širom sveta koriste Internet kao svakodnevni izvor zdravstvenih informacija. Google je najpopularniji alat za pretragu ovakvih informacija, bilo od strane pacijenata, bilo od strane zdravstvenih profesionalaca. Postoje brojni načini za ispitivanje karakteristika ovih pretraga stoga su naučnici širom sveta publikovali studije koje proučavaju karakteristike i kvalifikacije ljudi koji zdravstvene informacije traže na ovaj način, kredibilitet tih informacija, način na koji pacijenti biraju kome da veruju, trendove u pretragama određenih medicinskih termina itd.

Jedan od Guglovih alata-Google trends omogućio je svakom laiku da ima uvid u to koliko je određeni pojam tražen, propuštajući kroz "filter" određenu lokaciju, precizni vremenski interval, pojmove koji korespondiraju sa traženim... Stoga su autori jedne publikovane studije prikazali kroz devetogodišnji period, promene u traženju termina "epilepsija" i "napad" u zemljama sa engleskim govornim područjem i došli do zaključka da najveći broj ljudi pretražuje informacije u vezi sa simptomima, najverovatnije, kako bi sami sebi mogli da postave inicijalnu dijagnozu.

Rastući broj onlajn zdravstvenih zajednica nude mogućnosti za dobijanje zdravstvenih informacija, savete i podršku putem mreže. Ranije studije su pokazale da ovakvi onlajn kontakti mogu biti važni izvori informacija i čak izazvati značajan uticaj na ponašanje pojedinca. Ipak, malo je poznato kako ljudi biraju koga da kontaktiraju u ovom virtuelnom zdravstvenom svetu. Početkom 2014. godine objavljen je rad kolega iz SAD koje su bavile ovom temom, a koji će biti prezentovan u okviru teme.

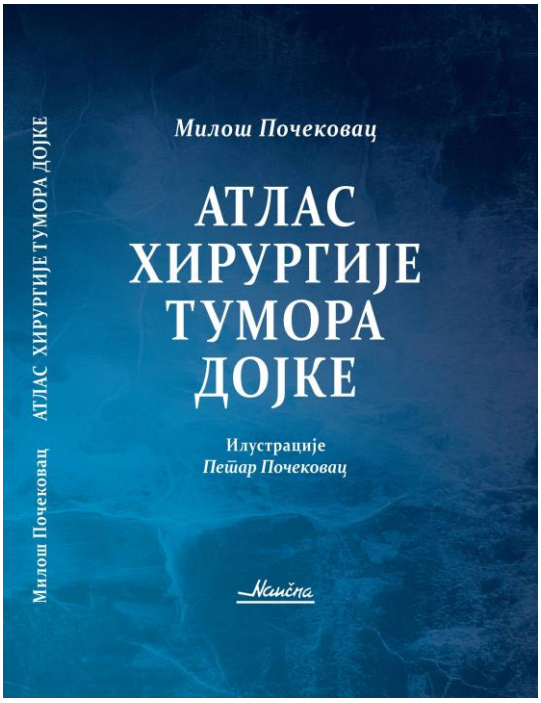
Stalno rastući broj ljudi se okreće Internetu tražeći zdravstveni savet, znajući da kvalitet informacija na različitim web stranicama varira. U radu će biti prikazani i rezultati studije koji pokazuju kako pacijenti donose odluku koji savet i informaciju usvojiti, od onih koje su pronašli na mreži.

Kako bi smanjile troškove "face to face" usluga, vlade mnogih zemalja pribegavaju onlajn servisima kao podrška zdravstvenom sistemu kreirajući različite zajednice ili forume. Problem se javlja kada neprofesionalac napravi ovakvu internet stranicu pružajući neprovene i naučno neutemeljene informacije. Australijski naučnici su 2013. godine objavili studiju koja upravo proučava ovaj fenomen.

Publikovani radovi na ove teme pružaju i informacije o personalnim i demografskim karakteristikama onih koji zdravstvene informacije traže na mreži. Stoga se nameće zaključak da svi koji žele da idu u susret potrebama pacijenata to jednostavno mogu učiniti analizirajući njihove Google pretrage.

Ključne reči: zdravstvene informacije, Internet, komunikacija

MONOGRAFIJE



Atlas hirurgije tumora dojke

Miloš Počekovac

Predgovor

Ovaj atlas predstavlja naš doprinos obogaćivanju relativno oskudne literature ovoga tipa na našem jeziku. I dok se kod nas time bave retki entuzijasti u svetu to rade profesionalci ("medical artists").

Atlas je namenjen pre svega lekarima na subspecijalizaciji iz onkologije koji se bave hirurgijom dojke. On treba da posluži kao dopuna postojećoj literaturi, izbegavajući ponavljanje činjenica za koje pretpostavljamo da su poznate čitaocu (priprema hirurga, priprema operativnog polja, opis položaja pacijenta) i da sa što više preglednih slika prikaže najčešće operacije dojke. Jasno je da operacije prikazane u ovom atlasu nisu jedina metoda. Pokušali smo da "step by step" crtežima prikažemo najčešće intervencije na dojci i početnicima u ovoj oblasti olakšamo bolje razumevanje ove operativne tehnike.

Knjiga je podeljena na nekoliko poglavlja. U najkraćem su obrađeni anatomija i dijagnostika tumora dojke, a detaljnije su prikazani benigni i maligni tumori dojke i njihovo uklanjanje.

Jedan od osnovnih problema ovakve specifične publikacije jeste broj, veličina i preglednost crteža koji treba da prikažu pojedine faze operacije. Stvar je procene svakog autora sa koliko crteža treba prikazati pojedine postupke da bi ih objasnio čitaocu.

Mislimo da ovakvu vrstu materije treba predstaviti tako da na istoj stranici knjige, kratak tekst, samo prati crteže koji postupno ilustruju pojedine faze operacije, a ne da opširni tekst pokrije odsustvo ilustracija. U svakom slučaju operacije se ne mogu naučiti samo iz knjiga.

Izvodi iz recenzija

"Primereno nameni i naslovu publikacije, njen najveći deo je posvećen hirurškoj tehnici najčešće korišćenih operacija u hirurgiji tumora dojke počevši od tumorektomija, preko segmentektomija do Halstedove radikalne mastektomije. Posebnu vrednost daju originalni crteži koji su veoma jasni i pokazuju ključne korake u operativnom postupku počevši od reza na koži i potkožju do uklanjanja planiranog opsega tkiva dojke u odnosu na tumor do disekcije aksile i suture operativne rane."

Prof. dr Dragan Radovanović, dr sc. med.

"Svaka pojava hirurškog udžbenika predstavlja značajan doprinos u našoj sredini, a posebno hirurškog atlasa koji na jednostavan i informativan način olakšava važne odluke koje hirurg-onkolog treba da donese pri izboru lečenja pacijentkinja sa karcinomom dojke. Zbog svega ovoga hirurški atlas operacija dojke od autora dr Miloša Počekovca predstavlja značajan doprinos u edukaciji hirurga koji se bave karcinomom dojke i predstavljaće koristan deo biblioteke svakog hirurga."

Ass. dr sci. med. Srđan Nikolić

Neinvazivna stimulacija mozga u terapiji depresije

Dr Jelena Krstić

U ovom radu polazi se od problematike efikasnog i bezbednog lečenja depresije, koji i dalje predstavlja veliki izazov u psihijatriji. Monografija se bavi primenom novih tehnika neinvazivne stimulacije mozga u terapiji depresije, kojima se neuromodulacija postiže na način bezbolan za pacijenta.

U knjizi je dat poseban osvrt na primenu repetitivne transkranijalne magnetne stimulacije (rTMS), koja je među njima jedina za sada odobrena u ovoj indikaciji, a čija primena tokom poslednje decenije doživljava ekspanziju.

U monografiji su prikazana dosadašnja saznanja iz ove oblasti: dati su kratak istorijat primene ove metode, biofizički principi na kojima je zasnovano njeno dejstvo, a razmatrani su i potencijalni neurobiološki mehanizmi dejstva proistekli iz saznanja iz rTMS eksperimenata na životinjama i studija funkcionalne neurovizuelizacije kod ljudi. Dat je i osvrt na sopstvena iskustva autorke u primeni ove metode, a dobijeni rezultati ukazuju na antidepresivnu efikasnost koja se održavala do 6 meseci, što ukazuje na to da je rTMS protokol koji je primenjen jedan od potencijalno efikasnih u lečenju terapijski rezistentne depresije.

U duhu personalizovane medicine, razmatrani su različiti psihološki faktori, kao i neurofiziološki i genetički biomarkeri kao potencijalni prediktori terapijskog odgovora. Sugerisane su potencijalne prednosti primene rTMS-a u pojedinim stanjima u okviru spektra bipolarnog afektivnog poremećaja, kao i u različitim grupama pacijenata kod kojih je primena farmakoterapije ograničena ili rizična. Monografija je jednako upućena svim profilima istraživača u okviru kompleksne oblasti kliničkih neuronauka, a pre svega psihijatrima i kliničkim neurofiziolozima.

Izvod iz recenzije

„U monografiji je predstavljeno veoma kompleksno, pionirsko istraživanje primene i sadejstva metoda biološke terapije u našoj sredini. Autorka je dala temeljan pregled dosadašnjih saznanja o značaju, prirodi i uzrocima depresije sa fokusom na biološku osnovu major depresije. Rezultati dobijeni u okviru ove studije pokazali su da udružena primena NF rTMS podržana sa PDS ima klinički relevantan potencijal primene kod osoba sa major depresijom. Ovi efekti su, pored toga, dugotrajni, a moguće je da su u vezi i sa genotipskim varijantama gena za BDNF, za šta je potrebna potvrda kroz buduća istraživanja...

...Monografija može biti podsticaj za dalja istraživanja mogućnosti primene rTMS i PDS terapije depresije, pogotovo kod bolesnika kod kojih psihofarmaci nisi dali terapijski efekat. Ovakvi naučni poduhvati potvrđuju svu kompleksnost ljudske prirode, pogotovo jedinstvo biološke i psihološke osnove mentalnog stanja ličnosti i pomažu da se nastavi trnovit put iznalaženja novih, bezbednijih i efikasnijih metoda lečenja u psihijatriji.“.

Prof. dr Ranko Raičević
Prof. dr Gordana Mandić-Gajić