
**Obilježavanje Ljubičastog dana u KBC-u Zagreb 25.03.2021.**

## *Purple Day*

- *Cilj: edukacija obitelji, nastavnika, a posebno djece školske dobi kako bi zauzeli što pozitivniji stav prema epilepsiji u budućem životu*

- ***Destigmatizacija***
  ***- značajni pomaci od 2008. god.***

- *pomoć oboljelima da ih okolina prihvati i razumije njihovu bolest*

# Što je to

# EPILEPSIJA?

poremećaj funkcije mozga koji se očituje epileptičnim napadajima

**50 000 000 ljudi**

Širom svijeta ima epilepsiju

*zahvaća ljude svih životnih dobi*


**40 000 oboljelih u Hrvatskoj**

Izvor: Global Bourden of Disease, SZO

Sistemski poremećaji: hipoglikemija, hiponatrijemija, uremija, hepatička encefalopatija,intoksikacije, hipertermija, eklampsija


Prince
Neil Young
Julius Caesar
Napolean
Charles V
Charles II Spain
Charles II England
Peter the Great
James Madison
Lenin
Pope Pius IX
Prince John
Tchaikovsky
Richard Burton
Blaise Pascal
Alan Faneca
DJ Hapa
Chief Justice Roberts
Sen. Ted Kennedy
Chanda Gunn
Tony Coelho
Truman Capote
Florence Joyner
Margot Hemingway
Bobby Jones
Hugo Weaving
Danny Glover
Bud Abbott
Flaubert
Dostoevsky
Lord Byr
Leo Tolstoy
Alfred Nobel
1%


*Lewis Carroll (1832 -1898)*

*Vincent Van Gogh: “Cafe Terrace by Night”, 1888. god*

# Dijagnoza epilepsije

1. Najmanje dva neprovocirana epileptična napadaja koja su se dogodila u vremenskom razmaku duljem od 24 sata.

2. Jedan neprovocirani epileptični napadaj i vjerojatnost daljnjih napadaja najmanje 60% u narednih 10 godina ( bolesnici s preboljelim moždanim udarom, infekcijom središnjeg živčanog sustava, kod promjena u EEG-u, kod određenih tipova traume mozga, tumora mozga, itd.)

3. Dijagnoza epileptičnog sindroma

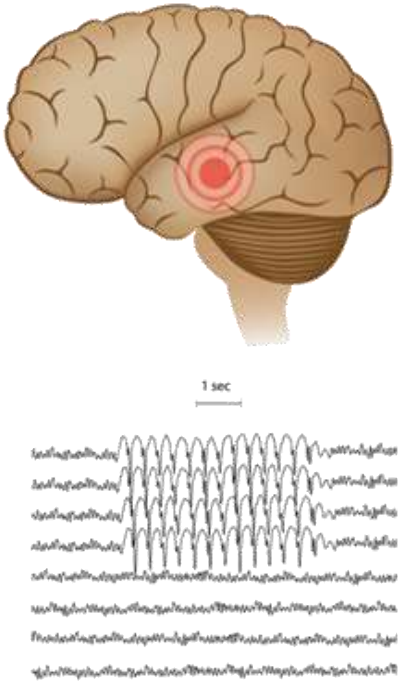
## A practical clinical definition of epilepsy

*Robert S. Fisher, †Carlos Acevedo, ‡Alexis Arzimanoglou, §Alicia Bogacz, ¶J. Helen Cross, #Christian E. Elger, **Jerome Engel Jr, ††Lars Forsgren, ‡‡Jacqueline A. French, §§Mike Glynn, ¶¶Dale C. Hesdorffer, ##B.I. Lee, ***Gary W. Mathern, †††Solomon L. Moshé, ‡‡‡Emilio Perucca, §§§Ingrid E. Scheffer, ¶¶¶Torbjörn Tomson, ###Masako Watanabe, and ****Samuel Wiebe

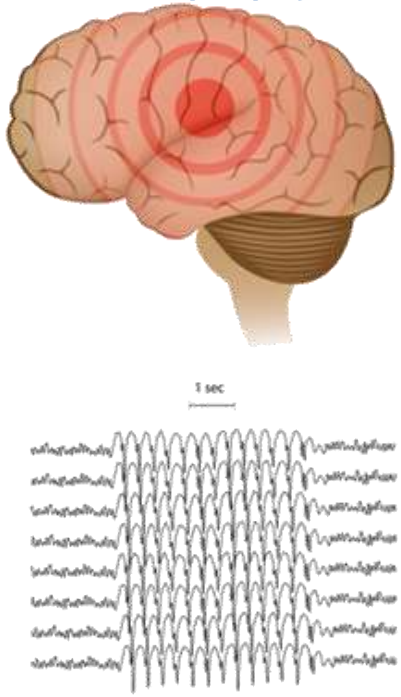
*Epilepsia*, 55(4):475–482, 2014

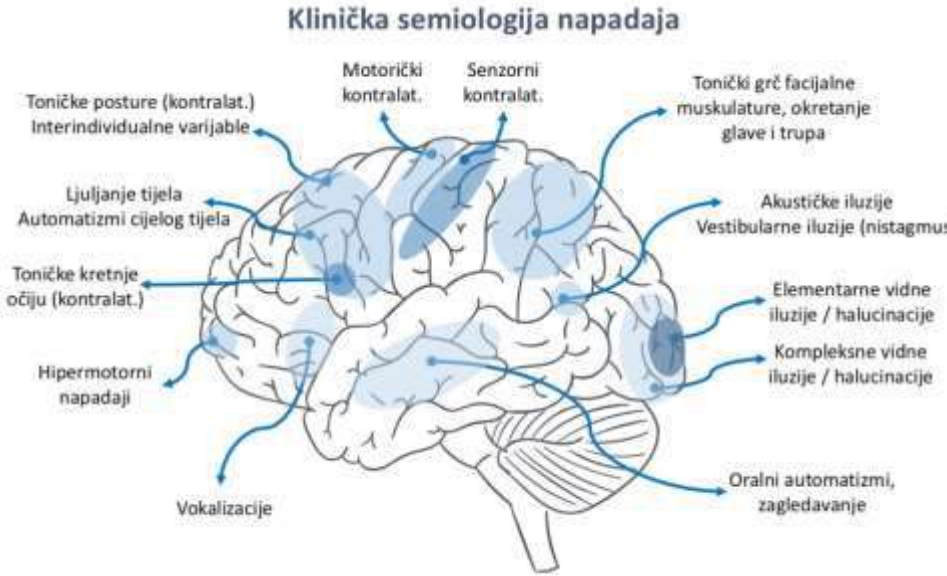
# Klasifikacija epilepsija

## 1. Žarišne epilepsije




## 2. Generalizirane epilepsije




## 3. Epilepsije nepoznatog početka

## Specijalni epileptični sindromi

Izvor: ILAE, 2017.

# PATOFIZIOLOGIJA EPILEPSIJE

paroksizmalni poremećaj funkcije mozga koji je rekurentan i stereotipan

stanice moždane kore -previše podražljive,reagiraju s ekscesivnim, sinkronim i, u početku, ograničenim kortikalnim neuronalnim izbijanjima

klinički - epileptični napadaji

zagledavanje

nevoljne, nesvrsishodne kretnje

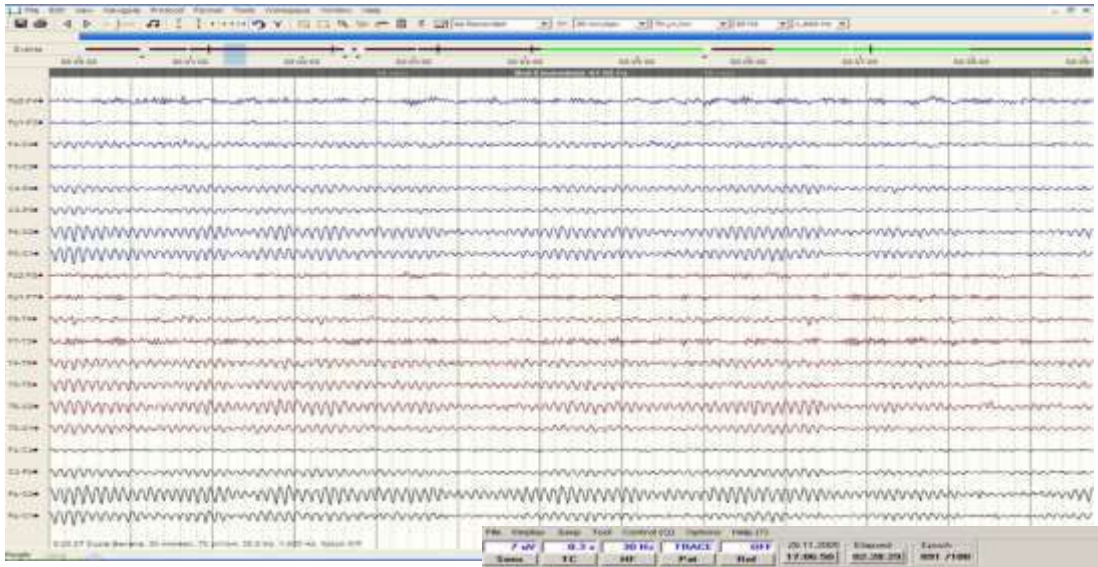
trzajevi

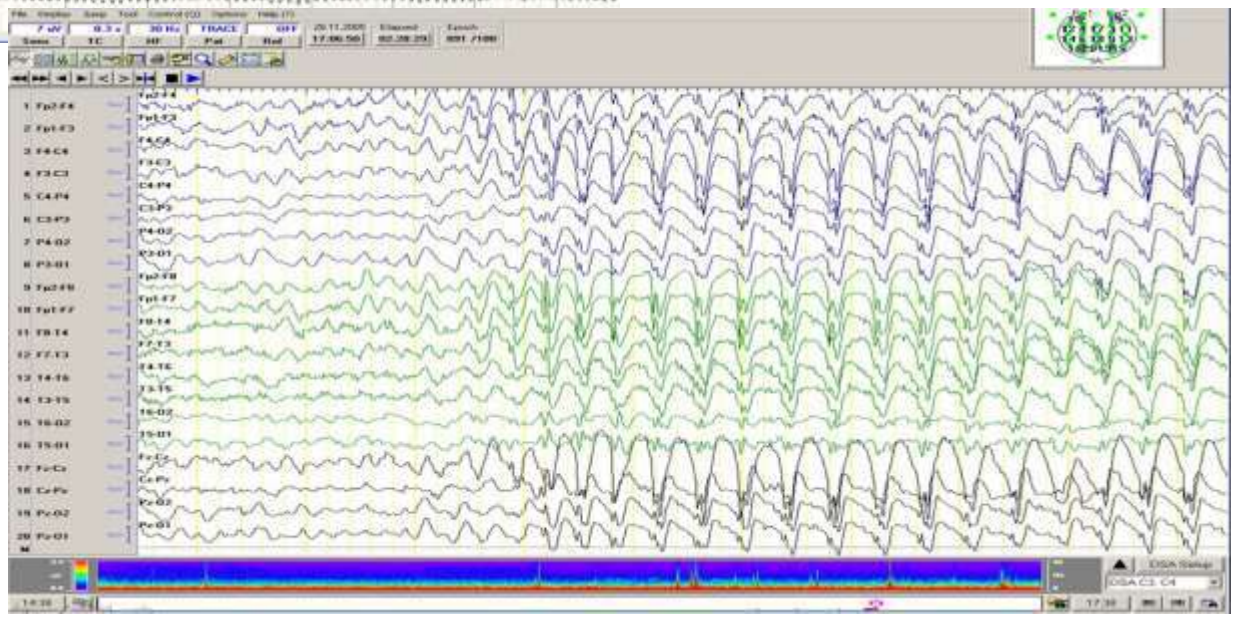
zbunjenost

## VRSTE EPILEPTIČNIH NAPADA

# Dijagnostika epilepsije





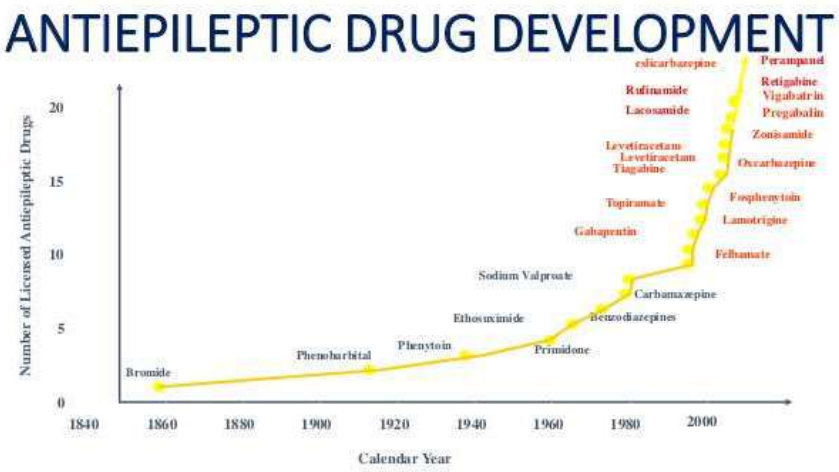


**EEG**

# Postoji li RJEŠENJE ?

Epilepsija se može liječiti djelotovrnim, povoljnim i dostupnim antiepilepticima


S redovitom terapijom 70% oboljelih od epilepsije može ostvariti punu kvalitetu života

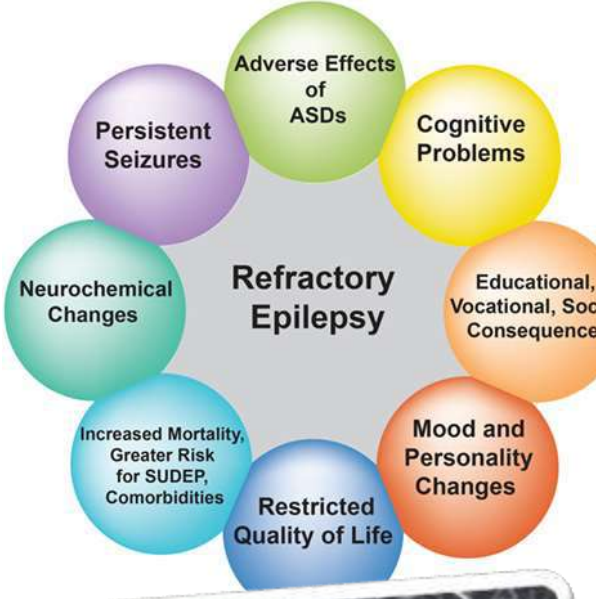


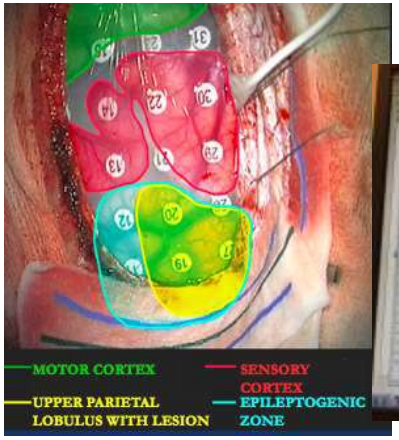

**„Klasični“ (stari) antiepileptici:**
fenobarbiton (PB)
metilfenobarbiton (MPB)
fenitoin (PHT)
acetazolamid (ACT)
primidon (PRM)
etosuksimid (ESC)
sultiam (SUL)
karbamazepin (CBZ)
valproati (VPA)
klonazepam (CNZ)
klobazam (CLB)
piracetam (PCT)

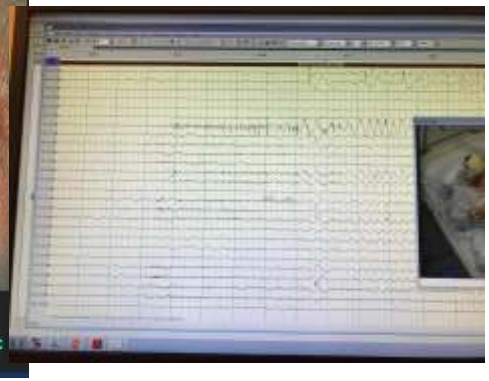
**„Moderni“ (novi) antiepileptici**:
vigabatrin (VGB)
lamotrigin (LTG)
gabapentin (GBP)
felbamat (FBM)
topiramat (TPM)
tiagabin (TGB)
okskarbazepin (OXC)
levetiracetam (LEV)
pregabalin (PGB)
zonisamid (ZNS)
rufinamid (RUF)
stiripentol (STP)
lakozamid (LCS)
eslikarbazepin-acetat (ESL)
retigabin (RTG)
perampanel (PER)
brivaracetam (BRV)

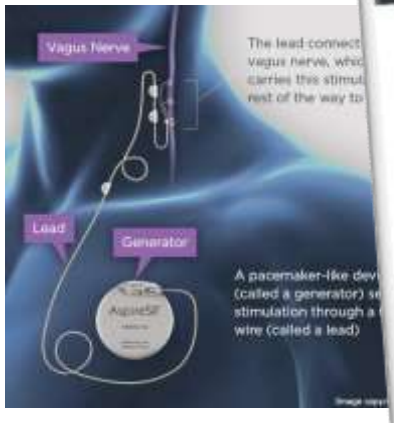
Izvor: Global Bourden of Disease, SZO

# Kirurško liječenje epilepsije



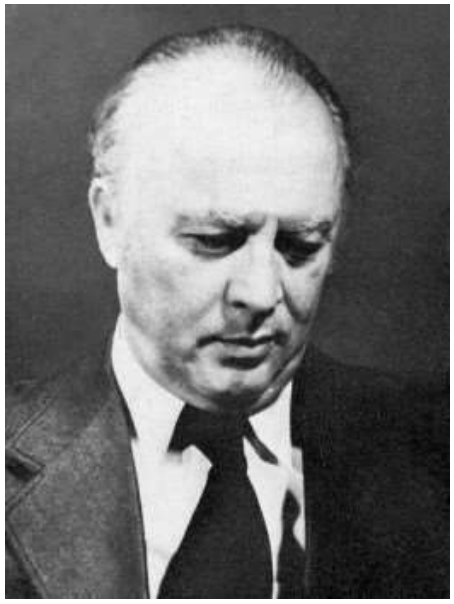






Prvo invazivno monitoriranje i operacija mozga bolesnice s farmakorezistentnom epilepsijom u Hrvatskoj

**Referentni centar Ministarstva zdravstva RH za epilepsiju**
**Affiliated to ERN EpiCARE**
**Klinika za neurologiju Medicinskog fakulteta u Zagrebu i KBC Zagreb**



Prof. dr. sc. Franjo Hajnšek

Prof. dr. sc. Nikola Gubarev


EEG laboratorij 1958. god. i 2021. god.

obljetnice

# 50 godina Centra za epilepsiju KBC-a Zagreb

U prostorijama Novinarskog doma u Zagrebu 18. je prosinca svečano obilježena 50. obljetnica Centra za epilepsiju KBC-a Zagreb, vodećeg središta ne samo u Hrvatskoj, već i regiji za dijagnostiku i liječenje ove neurološke bolesti. U organizaciji Klinike za neurologiju KBC-a Zagreb i Referentnog centra za epilepsiju Ministarstva zdravstva i socijalne skrbi te pod pokroviteljstvom Ministarstva zdravstva i socijalne skrbi RH, ravnatelja KBC-a Zagreb akademika **Željka Reinera**, Grada Zagreba, Gradskog ureda za zdravstvo i branitelje, te zagrebačkog Medicinskog fakulteta, skupu su prisustvovali svi eminentni hrvatski neurolozi te mnogi vrsni stranci.

Stručnjaci iz Centra su svojim predavanjima predstavili inovativne dijagnostičke mogućnosti i najnovija postignuća u liječenju epilepsije (medikamentno, klasično reselektivno neurokirurško i minimalno invazivno neurokirurško liječenje implantacijom vagusnih stimulatora). Uvodnu riječ održao je ravnatelj KBC-a Zagreb, akademik Željko Reiner, a izlaganja su potom nastavili doc. dr. **Sanja Hajnšek**, doc. dr. **Željka Petelin Gadže**, dr. **Boško Rastovčan** i dr. **Katarina Blažina**.

Centar za epilepsiju osnovao je prof. dr. **Franjo Hajnšek** 1958. godine. Do osamostaljenja Hrvatske bio je referentno središte na razini bivše Jugoslavije, a od 1999. postaje zaslugom prof. dr. **Nikole Gubareva** Referentni centar za epilepsiju Ministarstva zdravstva i socijalne skrbi. Doc. dr. sc. Sanja Hajnšek, pročelnica Centra za epilepsiju i predstojnica Klinike za neurologiju KBC-a Zagreb, u svom je obraćanju, među ostalim, istaknula:

„Centar za epilepsiju KBC-a Zagreb u proteklih 50 godina kontinuirano prati aktualne svjetske trendove te pacijentima iz Hrvatske i regije osigurava vrhunsku razinu liječenja i sjajne rezultate kod tretiranja ove neurološke bolesti. Zahvalila bih ve Upravi KBC-a Zagreb i ravnatelju akademiku Željku Reineru na razumijevanju za potrebe Centra i pomoći oko nabave novih najsofisticiranijih uređaja te svim ostalim stručnjacima koji su pridonijeli da ovaj Centar bude ne samo referentno središte u Hrvatskoj, već da uživa ugled i u svjetskim epileptološkim krugovima. Posebno sam ponosna na svoj tim, jer smo 23. studenog 2009., kao prvi u Hrvatskoj, na pacijentici koja je kandidat za kirurško liječenje izveli Wada test, svjetski priznat postupak za utvrđivanje lokalizacije funkcije govora i pamćenja u dominantnoj, odnosno nedominantnoj moždanoj hemisferi."

Upravo ovaj test, koji su po prvi put u Hrvatskoj izveli ispitivači - neurolozi doc. Hajnšek, doc. dr. **Zdravka Poljaković** i doc. **Petelin Gadže** te neuroradiolog dr. **David Ozretić** - uz magnetsku rezonanciju mozga i semi-invazivno te invazivno EEG monitoriranje, kontsi se u sklopu preoperativne obrade bolesnika s epilepsijom kod kojih lijekovima nije postignuta zadovoljavajuća kontrola napada. Na unapređivanje dosadašnje preoperativne obrade bolesnika i upravo takvim oblikom epilepsije krenulo se kroz suradnju s Klinikom za epileptologiju Sveučilišta u Bonnu, što predstavlja još jedno priznanje ovome Centru.

U Europi za sada samo dva medicinska centra (u Velikoj Britaniji i u Francuskoj koriste Nicolet Kortikalni Stimulator kao najsofisticiraniji uređaj takvog tipa, koji predstavlja najnoviju inovaciju u funkcionalnom EEG monitoriranju. Zahvaljujući podršci Uprave KBC-a Zagreb do kraja 2009. godine će uređaj dobiti i Centar za epilepsiju Klinike za neurologiju KBC-a Zagreb. Ovaj uređaj pruža nevidene mogućnosti obavljajući detaljan prikaz moždane kartografije (kortikalni centara za motoriku, govor i osjet) te ishodišta epileptičkih napada (epileptičkih fokusa), kirurškoj sali, kod EEG monitoriranja za vrijeme resekcije tumora ili kirurških zahvata kod epilepsija.

Zbog dugogodišnje vodeće uloge u liječenju i dijagnostici epilepsija, u Centar još uvijek dolaze, osim iz Hrvatske, i pacijenti iz susjednih država. Uz pročelnicu doc. Hajnšek, u Centru je zaposleno još šest specijalista neurologa: doc. Petelin Gadže, doc. Poljaković, dr. **Sibila Nanković**, mr. sc. dr. **Borislav Radić**, dr. **Vlatko Šulentić** i dr. **Ivana Kovačević** - koji sudjeluju u organiziranju i provođenju trajne edukacije specijalista neurologije u području epileptologije. U tim Centra su također, uključeni i neurokirurg, neuropsiholog, pohađat, specijalist nuklearne medicine, neuropsiholog i socijalni radnik, koji

Tim Centra za epilepsiju, KBC Zagreb (s lijeva na desno):
J. Dodig, J. Pećina, S. Nanković, J. Bošnjak, R. Nemeth, V. Šulentić, S. Hajnšek, M. Jovanović, B. Gurdjan, Ž. Petelin Gadže, I. Kovačević, B. I. Šepec, N. Hudorić, B. Radić



2009. god.

#EPILEPSYDAY

# Multidisciplinarni pristup


KBC ZAGREB

Neurolog-epileptolog
Neuropedijatar
(tranzicijski program)
Liječnik obiteljske medicine

Psiholog
Socijalni radnik
Psihijatar
Logoped
Nutricionist

Neuroradiolog
Spec. nuklearne medicine
Spec. med. biokemije
Spec. analit. toksikologije
Spec. lab. medicine
Genetičar
Neonatolog

Osoba oboljela od epilepsije

Medicinska sestra
Neurofiziološki tehničar
Biomedicinski inženjer
Fizioterapeut

Neurokirurg
Traumatolog
Anesteziolog
Neuropatolog
Ginekolog
Kardiolog
Oftalmolog


# Suradnja s laboratorijima u Klinici za neurologiju

| | | |
|---|---|---|
| *Laboratorij za EMNG* | *Laboratorij za testiranje autonomnog živčanog sustava* | *Laboratorij za UZV* |
| *Laboratorij za kognitivnu i eksperimentalnu neurofiziologiju* | *Laboratorij za evocirane potencijale* | *Dnevna bolnica* |

# Epilepsy Surgery Program 2021

## University Hospital Centre Zagreb, School of Medicine, University of Zagreb, Croatia

**Department of Neurology**
Head: Prof. Ervina Bilić, MD, PhD
**Epilepsy Centre:**
Assoc. Prof. Željka Petelin Gadže, MD, PhD
Prof. Zdravka Poljaković, MD, PhD
Sibila Nanković, MD
Vlatko Šulentić, MD, MSc
Andreja Bujan Kovač, MD
Petra Nimac Kozina, MD
Biljana Đapić Ivančić, MD
Assist. Prof. Magdalena Krbot Skorić, EE, PhD
Valentina Ričković, clinical psychologist
Neurophysiology technicians: Jela Dodig, Maja Jovanović, Ruža Novosel, Jasna Pekčec, Mirjana Hudoletnjak
Epilepsy Nurses: Nikolina Hederić, Jasminka Korenika, Anita Ljubić, Nives Šestić

**Centre for Translational and Clinical Research:**
Prof. Fran Borovečki, MD, PhD
Kristina Gotovac Jerčić, MD, PhD
Antonela Blažeković, MD

**Department of Neuroradiology:**
Assoc.Prof. Marko Radoš, MD, PhD
Assoc.Prof. Milan Radoš, MD, PhD
Assist. Prof. David Ozretić, MD, PhD
Assist. Prof. Goran Pavliša, MD, PhD
Ivan Jovanović, MD

**Department of Nuclear Medicine:**
Ratimir Petrović, MD
Anja Tea Golubić, MD

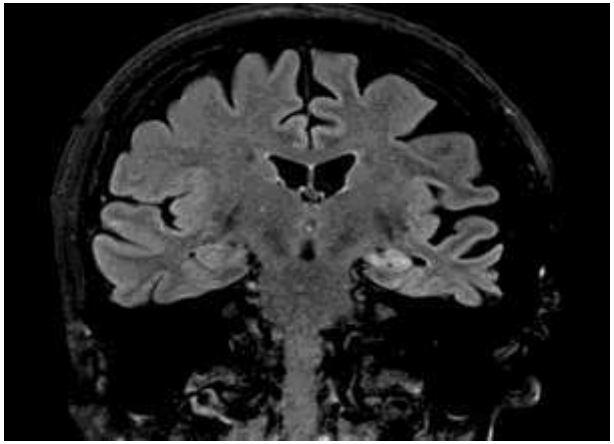
**Department of Neurosurgery:**
Assist. Prof. Goran Mrak, MD, PhD
Andrej Desnica, MD
Jakob Nemir, MD, PhD
Niko Njirić, MD
Lana Maljković, neuropsychologist

**Department of Neuropathology:**
Prof. Kamelija Žarković, MD, PhD
Antonija Jakovčević, MD, PhD

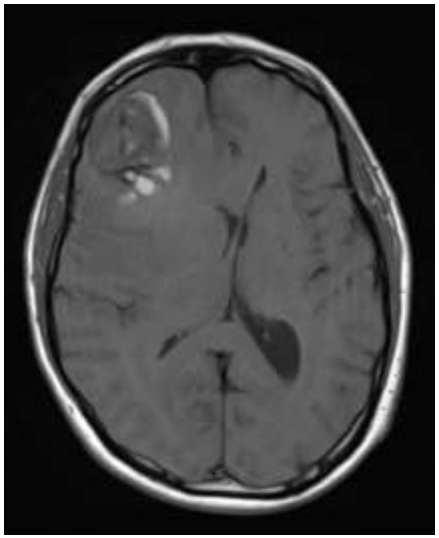
**Department of Psychiatry and Psychological Medicine:**
Assist. Prof. Saša Jevtović, M.D., Ph.D.
Maja Živković, M.D., Ph.D.

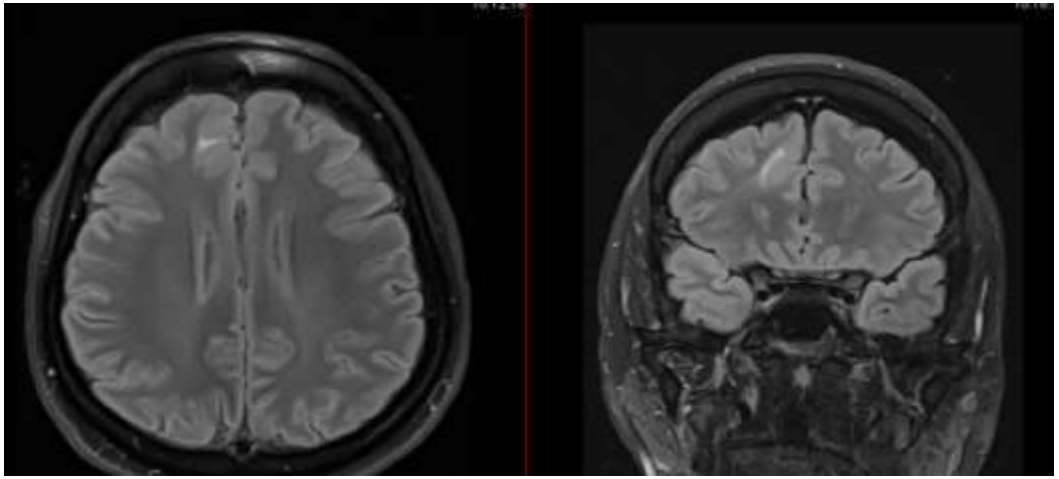
**Department of Pediatrics:**
Prof. Nina Barišić, MD, PhD
Branka Bunoza, MD
Ivan Lehman, MD
Nataša Nenadić Baranašić, MD, PhD

**Department of Laboratory Diagnostics:**
Prof. Nada Božina, MD, PhD
Assist. Prof. Mila Lovrić, PhD
Ana Kozmar, PhD



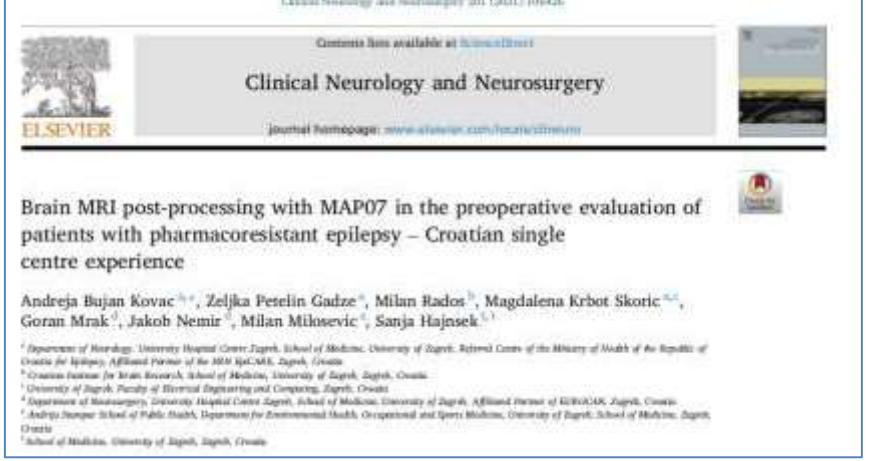
**MR mozga**





# MAP07

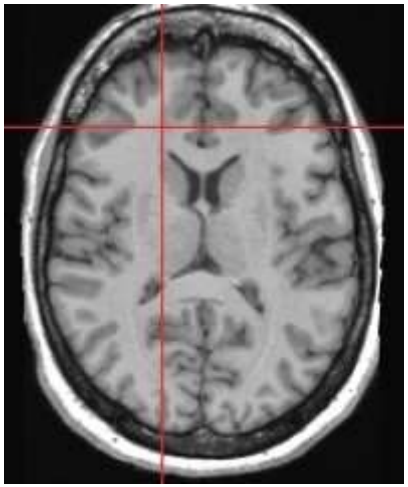
Brain MRI postprocessing software

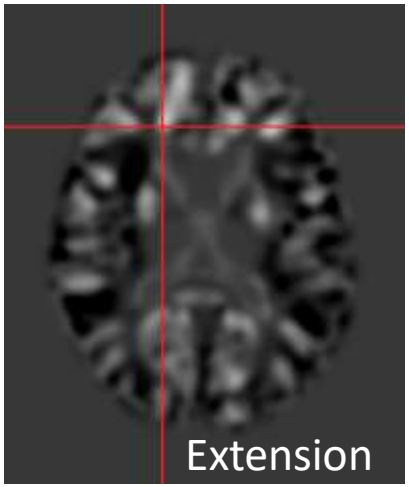

Clinical Neurology and Neurosurgery

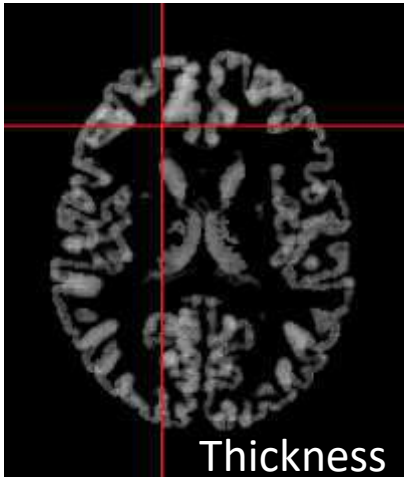
Brain MRI post-processing with MAP07 in the preoperative evaluation of patients with pharmacoresistant epilepsy – Croatian single centre experience

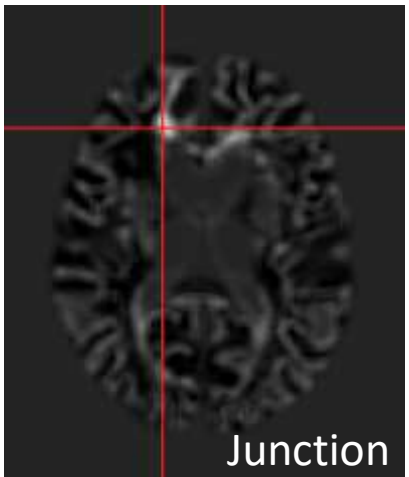
Andreja Bujan Kovac, Zeljka Perelin Gadze, Milan Rados, Magdalena Krbot Skoric, Goran Mrak, Jakob Nemir, Milan Milosevic, Sanja Hajnsek

## Detection of FCD and other types of MCD

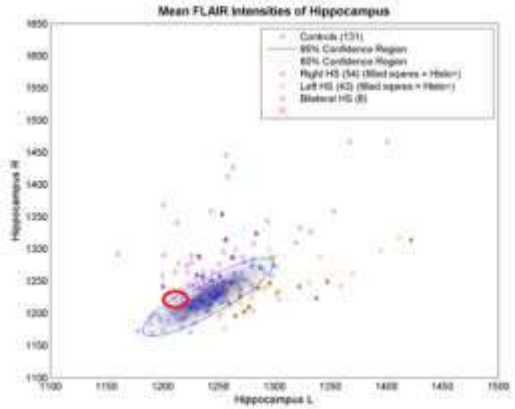




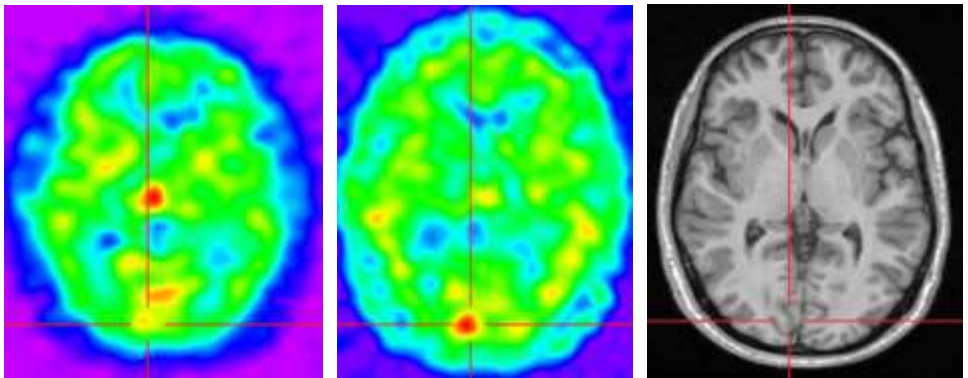



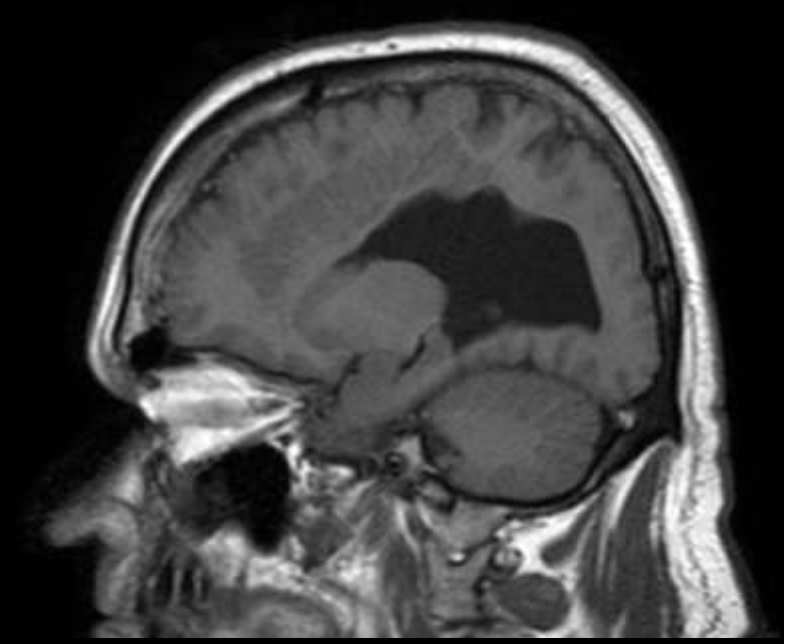



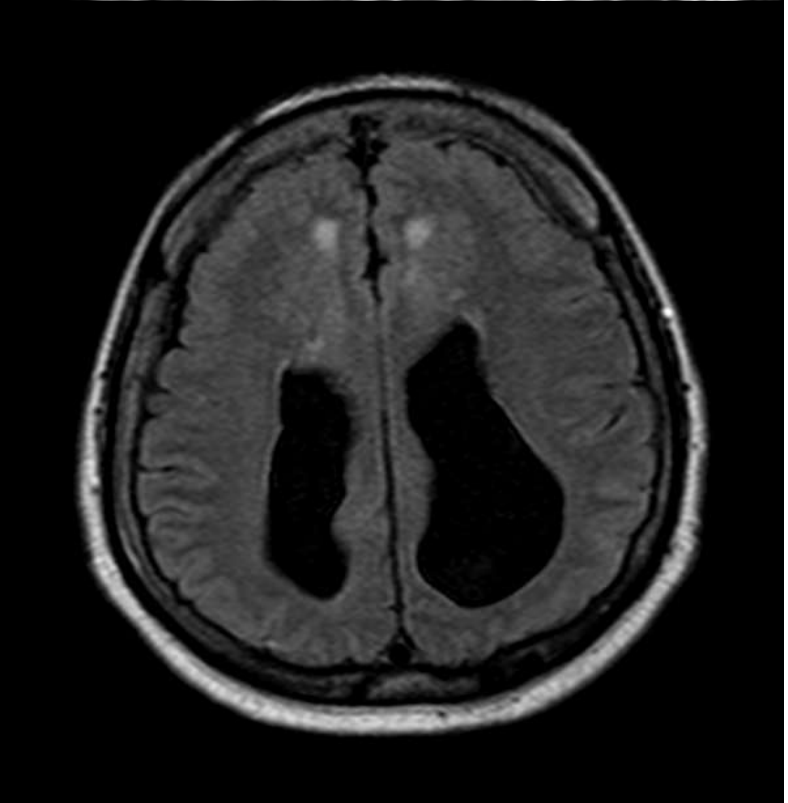

## Detection of MTS




## MAP07 coregistration – SPECT with MR







PATIENT ID
22082017

# EPILOG

SmartBrain
08/06/2015

## Detected Spike Clusters

Average spike of the detected clusters and corresponding 3D topography at the peak

Spike max: 47
Replies: 226
Spike similarity: 55%

Fp1-F7
F7-T3
T3-T5
T5-O1
Fp2-F8
F8-T4
T4-T6
T6-O2
Fp1-F3
F3-C3
C3-P3
P3-O1
Fp2-F4
F4-C4
C4-P4
P4-O2
Fz-Cz
Cz-Pz

-0.5 0.5
time (s)

Spike max: 42
Replies: 58
Spike similarity: 64%

Fp1-F7
F7-T3
T3-T5
T5-O1
Fp2-F8
F8-T4
T4-T6
T6-O2
Fp1-F3
F3-C3
C3-P3
P3-O1
Fp2-F4
F4-C4
C4-P4
P4-O2
Fz-Cz
Cz-Pz

-0.5 0.5
time (s)

## Spike Lateralization

At which electrodes most spikes were detected

## Spike Timing

Timing of the detected spikes

count (#)

time (s)

Automated EEG source imaging.


Coll. Antropol. 35 (2011) 3: ???–???
Original scientific paper

# Vagus Nerve Stimulation in the Treatment of Patients with Pharmacoresistant Epilepsy: Our Experiences

**Sanja Hajnšek[1,2], Željka Petelin[1,2], Zdravka Poljaković[1,2], Goran Mrak[3], Josip Paladino[3] and Andrej Desnica[3]**

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[3] University of Zagreb, Zagreb University Hospital Centre, Department of Neurosurgery, Zagreb, Croatia

## ABSTRACT

*Vagus nerve stimulation (VNS) for the treatment of refractory partial epileptic seizures with or witho generalisation in patients older than 12 years was approved in Europe in 1994 and in the United States in 1 studied the efficacy of VNS in patients with pharmacoresistant epilepsy hospitalized in the Neurology Depa University Hospital Centre Zagreb. From 1997 do 2001 we have implanted VNS in 11 patients with pharm epilepsy, who were magnetic resonance imaging (MRI) negative and from May 2007 to May 2009 in 11 pharmacoresistant epilepsy, 9 of them were MRI positive, and were inoperable due to localisation of the p logic changes (ganglioglioma, hamartoma, various types of cortical dysplasia, porencephalic cysts), 2 were In the group of MRI negative patients 1 patient had complex partial seizures (CPS), 6 patients had CPS wi generalisation, 2 patients had primary generalized epilepsy (PGE) including myoclonic, absence, atonic and seizures, one patient had PGE and CPS, and 3 patients had Lennox-Gastaut syndrome (LGS). In the group tive patients one patient had elementary partial seizures (EPS) and CPS, two patients had EPS and CPS wi generalisation, one patient had CPS, 3 patients had CPS with secondary generalisation, and 2 patients h secondary generalisation as well as atonic seizures. After continuous follow-up of 11 MRI negative patie years and 2 MRI negative patients during one year there was decrease in mean-seizure frequency of 51.67%. A ous follow-up of 9 MRI positive patients during 2 years there was decrease in mean-seizure frequency of 61.9 frequent side effects were hoarseness, throat pain and cough in the »on phase« of the VNS, but they were mil tory. We can conclude that VNS was effective mode of therapy in our group of patients with pharmacoresistar*

***Key words:*** *epilepsy, pharmacoresistancy, neurosurgical treatment, vagus nerve stimulator*

# Seizure outcome and use of antiepileptic drugs after epilepsy surgery according to histopathological diagnosis: a retrospective multicentre cohort study

*Herm J Lamberink, Willem M Otte, Ingmar Blümcke*, Kees P J Braun*, on behalf of the European Epilepsy Brain Bank writing group†, study group‡, and the European Reference Network EpiCARE*

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*Contributed equally
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Correspondence to: Prof Ingmar Blümcke, Institute of Neuropathology, University Hospitals Erlangen, D-91054 Erlangen, Germany
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## Summary

**Background** Surgery is a widely accepted treatment option for drug-resistant focal epilepsy. A detailed analysis of longitudinal postoperative seizure outcomes and use of antiepileptic drugs for different brain lesions causing epilepsy is not available. We aimed to analyse the association between histopathology and seizure outcome and drug freedom up to 5 years after epilepsy surgery, to improve presurgical decision making and counselling.

**Methods** In this retrospective, multicentre, longitudinal, cohort study, patients who had epilepsy surgery between Jan 1, 2000, and Dec 31, 2012, at 37 collaborating tertiary referral centres across 18 European countries of the European Epilepsy Brain Bank consortium were assessed. We included patients of all ages with histopathology available after epilepsy surgery. Histopathological diagnoses and a minimal dataset of clinical variables were collected from existing local databases and patient records. The primary outcomes were freedom from disabling seizures (Engel class 1) and drug freedom at 1, 2, and 5 years after surgery. Proportions of individuals who were Engel class 1 and drug-free were reported for the 11 main categories of histopathological diagnosis. We analysed the association between histopathology, duration of epilepsy, and age at surgery, and the primary outcomes using random effects multivariable logistic regression to control for confounding.

**Findings** 9147 patients were included, of whom seizure outcomes were available for 8191 (89·5%) participants at 2 years, and for 5577 (61·0%) at 5 years. The diagnoses of low-grade epilepsy associated neuroepithelial tumour (LEAT), vascular malformation, and hippocampal sclerosis had the best seizure outcome at 2 years after surgery, with 77·5% (1027 of 1325) of patients free from disabling seizures for LEAT, 74·0% (328 of 443) for vascular malformation, and 71·5% (2108 of 2948) for hippocampal sclerosis. The worst seizure outcomes at 2 years were seen for patients with focal cortical dysplasia type 1 or mild malformation of cortical development (50·0%, 213 of 426 free from disabling seizures), those with malformation of cortical development-other (52·3%, 212 of 405 free from disabling seizures), and for those with no histopathological lesion (53·5%, 396 of 740 free from disabling seizures). The proportion of patients being both Engel class 1 and drug-free was 0–14% at 1 year and increased to 14–51% at 5 years. Children were more often drug-free; temporal lobe surgeries had the best seizure outcomes; and a longer duration of epilepsy was associated with reduced chance of favourable seizure outcomes and drug freedom. This effect of duration was evident for all lesions, except for hippocampal sclerosis.

**Interpretation** Histopathological diagnosis, age at surgery, and duration of epilepsy are important prognostic factors for outcomes of epilepsy surgery. In every patient with refractory focal epilepsy presumed to be lesional, evaluation for surgery should be considered.

**Funding** None.



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Case Report

# Vagus nerve stimulation in Lafora body disease ☆

Sanja Hajnsek [a], Zeljka Petelin Gadze [a], Fran Borovecki [b], Sibila Nankovic [a], Goran Mrak [c], Kristina Gotovac [b], Vlatko Sulentic [a], Ivana Kovacevic [a], Andreja Bujan Kovac [a,b]

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ABSTRACT

Introduction: Lafora body disease (LBD) is a rare autosomal
(GTCSs). It belongs to the group of progressive myoclon
diseases with great clinical and genetic differences, a
pharmacoresistant disease, an adjunctive treatment optio
four reported cases of the utility of VNS in PME — in U
with ragged-red fibers (MERRF), Gaucher's disease, and i
Case presentation: A 19-year-old male patient had progre
epilepticus (SE), progressive cerebellar and extrapyramid
pharmacoresistant. We confirmed the diagnosis of LBD
year follow-up period, there was a complete reduction o
moderate regression of cerebellar symptomatology.
Conclusion: To our knowledge, this is the first reported ca
therapy may be considered a treatment option for differ
number of patients are needed.



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Seizure
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# Vagal nerve stimulation is beneficial in postural orthostatic tachycardia syndrome and epilepsy

Zeljka Petelin Gadze[a], Andreja Bujan Kovac[a,b,*], Ivan Adamec[b], Nina Milekic[c], Vlatko Sulentic[a]

Epilepsy & Behavior Case Reports 1 (2013) 150–152

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Case Report

Vagus nerve stimulation in Lafora body disease ☆

Sanja Hajnsek [a], Zeljka Petelin Gadze [a], Fran Borovecki [b], Sibila Nankovic [a], Goran Mrak [c], Kristina Gotovac [b], Vlatko Sulentic [a], Ivana Kovacevic [a], Andreja Bujan Kovac [a,*]

ARTICLE INFO

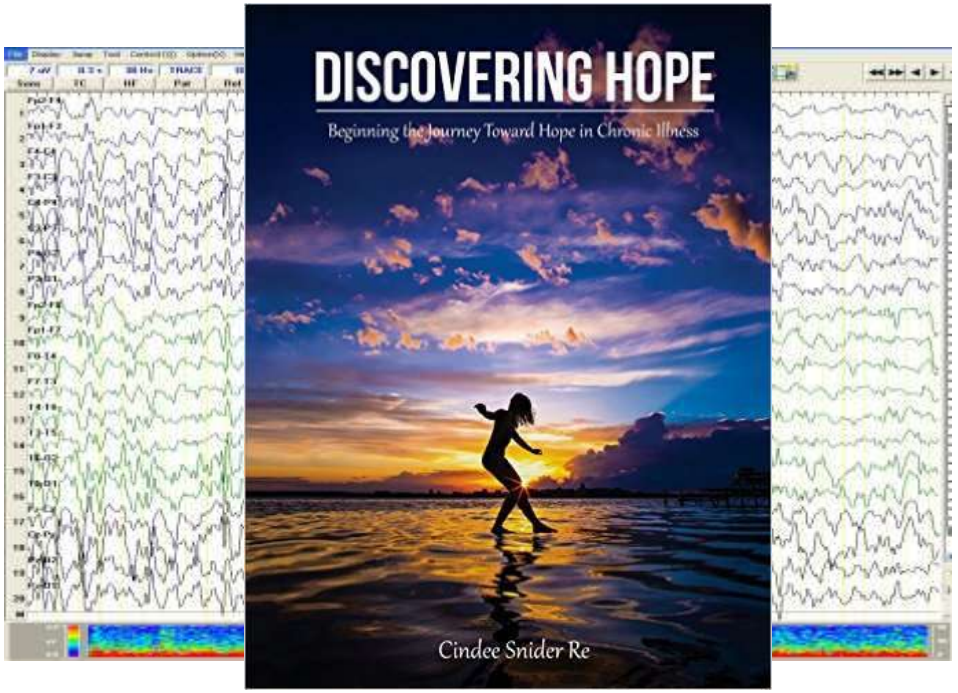
ABSTRACT

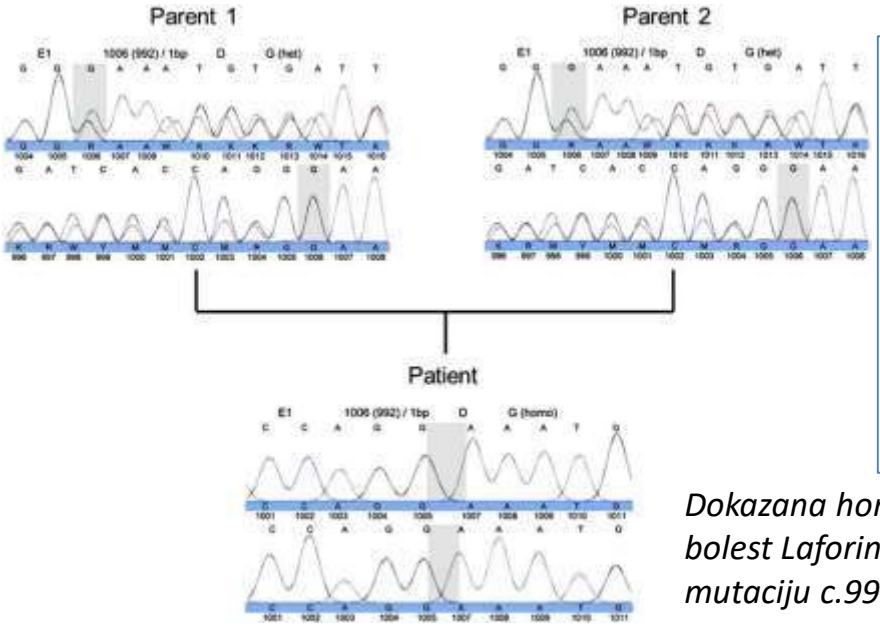
Introduction: Lafora body disease (LBD) is a rare autosomal recessive disorder characterized by progression to intractable dementia and frequent occipital seizures, in addition to myoclonus and generalized tonic–clinic seizures (GTCSs). It belongs to the group of progressive myoclonus epilepsies (PMEs), rare inherited neurodegenerative diseases with great clinical and genetic differences, as well as poor prognosis. Since those patients have a pharmacoresistant disease, an adjunctive treatment option is vagus nerve stimulation (VNS). To date, there are four reported cases of the utility of VNS in PME — in Unverricht–Lundborg disease (ULD), myoclonic epilepsy with ragged-red fibers (MERRF), Gaucher's disease, and in one case that remained unclassified.

Case presentation: A 19-year-old male patient had progressive myoclonus, GTCSs that often progressed to status epilepticus (SE), progressive cerebellar and extrapyramidal symptomatology, and dementia, and his disease was pharmacoresistant. We confirmed the diagnosis of LBD by genetic testing. After VNS implantation, in the one-year follow-up period, there was a complete reduction of GTCS and SE, significant regression of myoclonus, and moderate regression of cerebellar symptomatology.

Conclusion: To our knowledge, this is the first reported case of the utility of VNS in LBD. Vagus nerve stimulation therapy may be considered a treatment option for different clinical entities of PME. Further studies with a larger number of patients are needed.






- 4/2012 – implantiran VNS (Model 103)
- 2 mA, 30-Hz signal frequency, 500-ms pulse width, 30 sec. on-time, 3 min.
- 9-godišnji period praćenja
  - potpuna redukcija generaliziranih toničko-kloničkih napadaja
  - značajna regresija mioklonizama

*Dokazana homozigotna mutacija c.992delG u egzonu 1 gena EPM2B koja uzrokuje bolest Laforinih tjelešaca. Dodatne analize pokazale su u oba roditelja heterozigotnu mutaciju c.992delG.*




<u>Edukativna knjižica za bolesnike</u>
Referentni centar Ministarstva zdravstva RH za epilepsiju i Hrvatska udruga za epilepsiju

# Tečaj i novi sveučilišni priručnik o epilepsiji

Prof. dr. sc. Vesna Elveđi Gašparović, prof. dr. sc. Ante Čorušić i prof. dr. sc. Željka Petelin Gadže (s lijeva na desno)

najbolji način prikažu specifičnosti u dijagnostičkom i terapijskom algoritmu žena s epilepsijom, kao jednom od najučestalijih neuroloških bolesti, u adolescenciji, prijekoncepcijskom razdoblju te tijekom trudnoće, poroda i babinja, kao i u starijoj životnoj dobi. Posebno su istaknute nove spoznaje o utjecaju antiepileptika na razvojne anomalije fetusa, uz

učestalu neurološku bolest, a nami-

*Priručnik posvećujemo našoj dragoj profesorici Sanji Hajnšek, koja nam je prenijela entuzijazam i ljubav prema epileptologiji i uvijek nas poticala da idemo naprijed.*

U petak, 18. listopada 2019. godine, na Medicinskom fakultetu Sveučilišta u Zagrebu, održan je poslijediplomski tečaj stalnog medicinskog usavršavanja I. kategorije "**Novosti u dijagnostici i liječenju epilepsije u žena**", namijenjen specijalistima neurolozima, neuropedijatrima, neonatolozima, ginekolozima, liječnicima obiteljske medicine, kao i specijalizantima navedenih struka. Voditeljice tečaja bile su prof. dr. sc. Željka Petelin Gadže s Klinike za neurologiju KBC Zagreb i prof. dr. sc. Vesna Elveđi Gašparović s Klinike za ženske bolesti i porode KBC Zagreb, a stručni skup otvorio je prof. dr. sc. Ante Čorušić, ravnatelj KBC Zagreb. Bogati program tečaja s 25 predavača koncipiran je suradnjom neurologa, ginekologa, neuropedijatara, neonatologa, liječnika obiteljske medicine, specijalista laboratorijske medicine iz Hrvatske i Slovenije, s ciljem da se na

je promocija sveučilišnog priručnika "**Epilepsija – dijagnostički i terapijski pristup**", koji na sveobuhvatan način na 362 stranice opisuje ovu

Mladenka Bašić, dipl. novinar, KBC Zagreb

Autori i urednici sveučilišnog priručnika "Epilepsija – dijagnostički i terapijski pristup" - prim. mr. sc. Vlatko Šulentić, prof. dr. sc. Željka Petelin Gadže, prim. dr. Sibila Nanković i prof. dr. sc. Zdravka Poljaković (s lijeva na desno)




Registar EpiPreg (12/2019.)

## THE 14th WORLD CONGRESS ON CONTROVERSIES IN NEUROLOGY (CONy)

**OCTOBER 29 - NOVEMBER 1, 2020 • VIRTUAL**

**All times are CET (Central European)**

| | |
|---|---|
| **19:50-20:30** | **Should surgery be offered to patients after failure of two AEDs?** |
| | *Capsule: Epidemiological studies suggest that drug failure is quite likely once two agents have failed to control seizures. On the other hand, the literature contains numerous reports of response to drug therapy in patients formerly considered drug resistant. Are the ILAE guidelines supported by the evidence?* |
| 19:50-19:55 | Introduction and Pre-Debate Voting |
| 19:55-20:10 | Yes: **Zeljka Petelin Gadže**, Croatia |
| 20:10-20:25 | No: **Ettore Beghi**, Italy |
| 20:25-20:30 | Rebuttals, Discussion and Post-Debate Voting |
| | |

# „Ljubičasti dan " - prvi put u Hrvatskoj

• U svijetu se 26. ožujka obilježava kao „Purple Day" („Ljubičasti dan», Dan podrške oboljelima od epilepsije). Obilježavanje je pokrenuto 2008. godine na poticaj 9-godišnje djevojčice **Cassidy Megan**, njezinih roditelja i Društva za epilepsiju Nova Scotia, Kanada.

Cassidy je prezentirala svoju bolest i probleme pred kolegama u školi te je uz majčinu podršku pokrenuta šira akcija da 26. ožujka postane Dan podrške oboljelima i da ljubičasta boja lavande postane simbol jer je ona međunarodna boja epilepsije. Do danas je u akciju uključeno 15 zemalja diljem svijeta pre

basadora. Zamisao je da se u e su pristupile akciji podrške rutiraju dobrovoljni ambasadori irali i promovirali „Purple Day" . Ove je godine prvi put takva uta i u Hrvatskoj. Kanadsko lepsiju prihvatilo je našu apli- rsteni kao ambasadori Hrvatske mpanju stručnjaci epileptolozi reb, Klinika za neurologiju, tar za epilepsiju Ministarstva doc. dr ljakovi ankovi ris Radi nica Vla ju smo

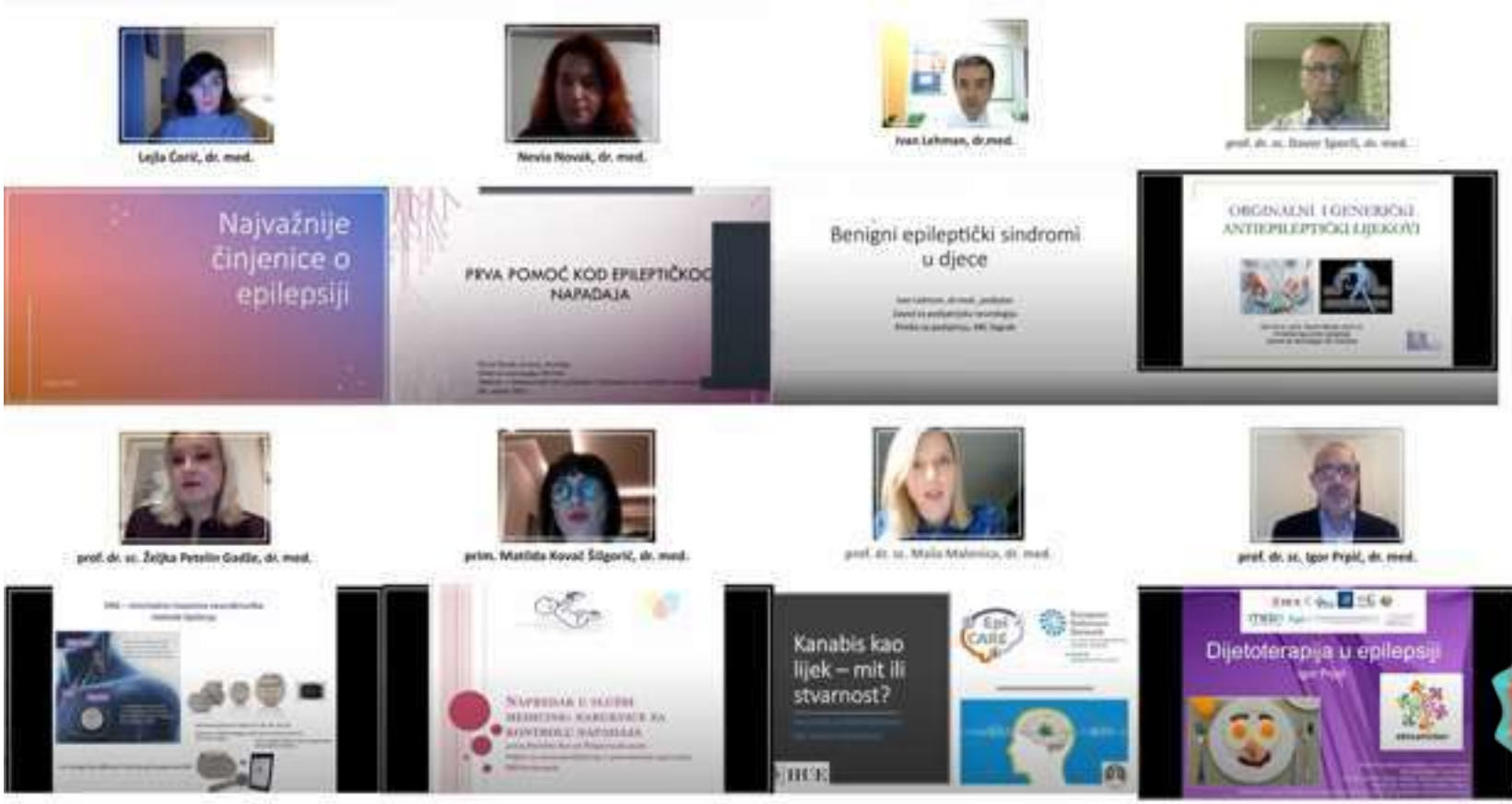
a riječima Cassidy Megan po- i svim oboljelim od epilepsije a se ne boje govoriti o svojoj nima vezanim uz bolest. Više „Ljubičastog dana " u svijetu **www.purpleday.org.**

*Dr. Sibila Nanković*
*i doc. dr. Željka Petelin*

2010

Supporting Epilepsy
Purple Day - March 26
Around The World


# Međunarodni dan epilepsije i Nacionalni dan oboljelih od epilepsije, veljača 2021.





International Epilepsy Day

# KAKO POMOĆI OSOBI KOJA IMA EPILEPTIČNI NAPAD?


**1. Ne dozvolite da vas uhvati panika!**

**2. Mjerite vrijeme napadaja!**

**3. Spriječite tjelesne ozljede, osobito glave!**

**4. Osobu koja ima napadaj nakon prestanka konvulzija postavite u bočni položaj!**

**5. Ne pokušavajte stavljati predmete između zubiju!**

**6. Ne pokušavajte napadaj prekinuti sputavanjem mišićnih kontrakcija!**

**7. Dobro je da su u blizini samo osobe koje pružaju pomoć!**

**8. Za vrijeme i nakon napadaja neka vaše djelovanje i način govora budu takvi da djeluju umirujuće!**

**9. Ostanite uz osobu dok se u potpunosti ne oporavi!**

**10. Nemojte davati osobama lijekove, hranu ili piće dok nisu u potpunosti budni!**


*“I only wanna see you Laughing in the purple rain.....”*

https://youtu.be/EsRUAoUvP10