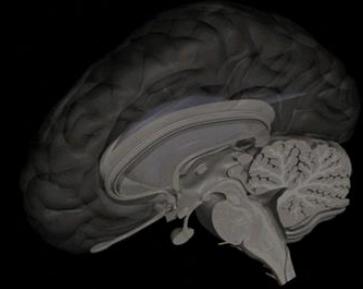


JORNADA EDUCATIVA 2023 LIGA LOCAL CONTRA LA EPILEPSIA PUERTO MONTT

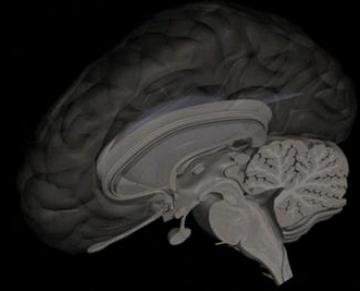
DR. PATRICIO GUERRA
NEURÓLOGO INFANTIL Y ADOLESCENTES
MAGÍSTER NEUROCIENCIAS
ESCUELA DE MEDICINA UNIVERSIDAD SAN SEBASTIÁN PUERTO MONTT



PROGRAMA

1. CONCEPTOS GENERALES DE EPILEPSIA
2. MANEJO DE URGENCIA ANTE UNA PERSONA CON CRISIS DE EPILEPSIA
3. DEPORTES Y EPILEPSIA
4. ESTUDIO DE LA EPILEPSIA
5. NUEVAS TERAPIAS EN EPILEPSIA
6. NUEVAS TECNOLOGÍAS DE APOYO PARA EL PACIENTE EPILÉPTICO
7. CANNABIS Y EPILEPSIA
8. AUTISMO (TEA) Y EPILEPSIA
9. PREGUNTAS

CONCEPTOS GENERALES EN EPILEPSIA



-DEFINICIÓN:

ENFERMEDAD DEL CEREBRO DEFINIDA POR CUALQUIERA DE LAS SIGUIENTES CONDICIONES:

1. PRESENCIA DE DOS CRISIS *NO PROVOCADAS* EN LAPSO MAYOR A 24 HRS
2. UNA CRISIS NO PROVOCADA Y UN RIESGO ESTIMADO DE RECURRENCIA ALTO:
 - DÉFICIT NEUROLÓGICO
 - EEG CON ACTIVIDAD EPILEPTIFORME INTERICTAL INEQUÍVOCA
 - NEUROIMÁGENES ANORMALES
 - PACIENTE/FAMILIA/MÉDICO CONSIDEREN RIESGO INACEPTABLE EL PRESENTAR UNA SEGUNDA CRISIS CONVULSIVA
3. DIAGNÓSTICO DE UN SÍNDROME EPILÉPTICO

CONCEPTOS GENERALES EN EPILEPSIA



PREVALENCIA:

-AFECTA AL 1% DE LA POBLACIÓN

-CHILE: 180.000 PERSONAS CON EPILEPSIA

-70% SE ENCUENTRA LIBRE DE CRISIS CON MEDICAMENTOS

-30% MANTIENE UNA CRISIS AL AÑO PESE A MEDICAMENTOS

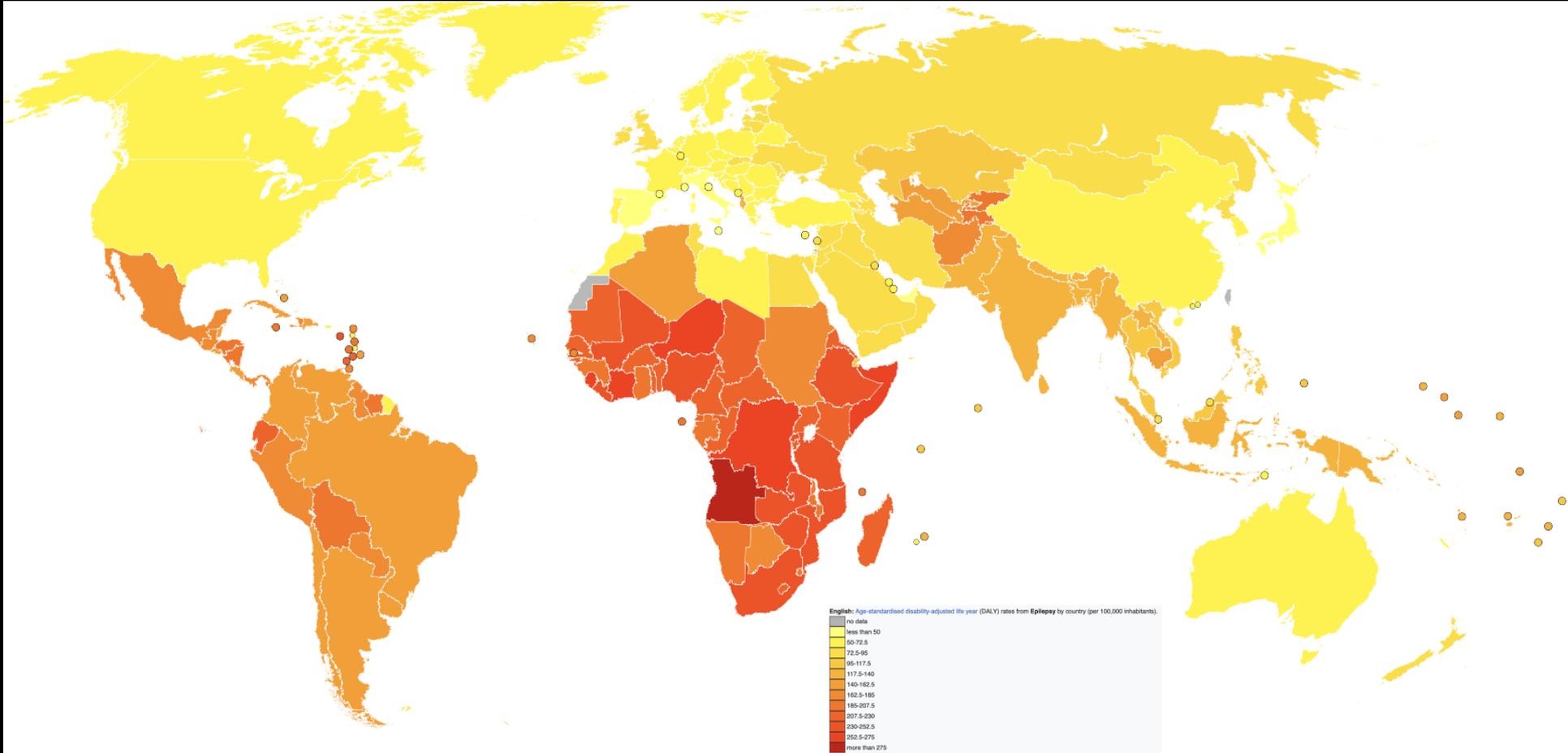
-HABITUALMENTE SE INICIA EN LA INFANCIA

-ENTRE LOS 20-50 AÑOS EL RIESGO ES BAJO

-EN LA VEJEZ EL RIESGO AUMENTA

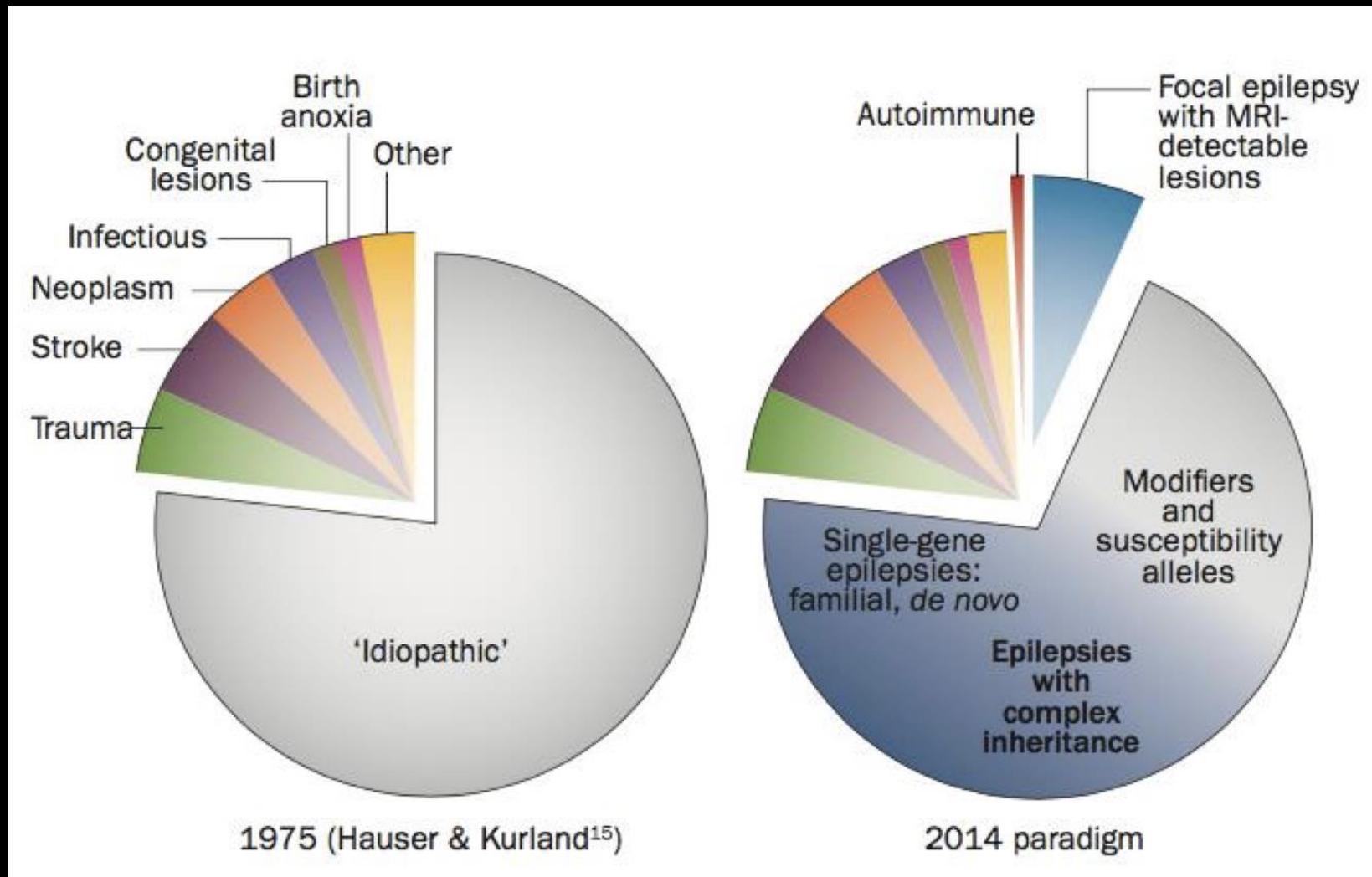
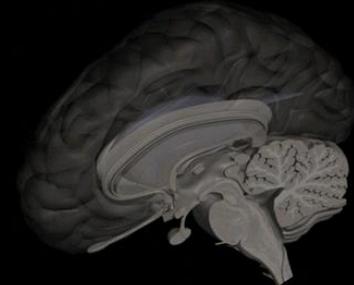
CONCEPTOS GENERALES EN EPILEPSIA

PREVALENCIA

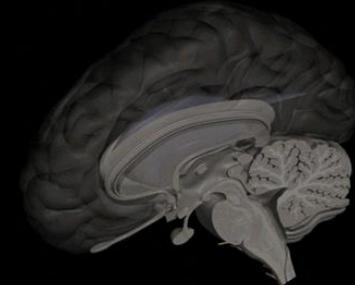


CONCEPTOS GENERALES EN EPILEPSIA

CAUSA (ETIOLOGÍA)



CONCEPTOS GENERALES EN EPILEPSIA



TIPOS DE CRISIS



-FOCALES

-GENERALIZADAS

-MOTORAS

-NO MOTORAS



2. MANEJO DE URGENCIA ANTE UNA CRISIS EPILÉPTICA



¿Qué hacer ante una CRISIS EPILÉPTICA?



Retira los objetos que estén a su alrededor

Mantén la calma



Recuesta al paciente, con cuidado, en el suelo y ponlo de lado



Acomoda su cabeza sobre un objeto blando



Llama a urgencias si tras cinco minutos no hay recuperación



Afloja y retira cualquier prenda ceñida



QUÉ NO HACER

× **NO** muevas al paciente × **NO** le abras la boca × **NO** le des agua, alimentos o medicamentos
× **NO** le hagas el boca a boca ni ninguna maniobra de reanimación × **NO** le grites

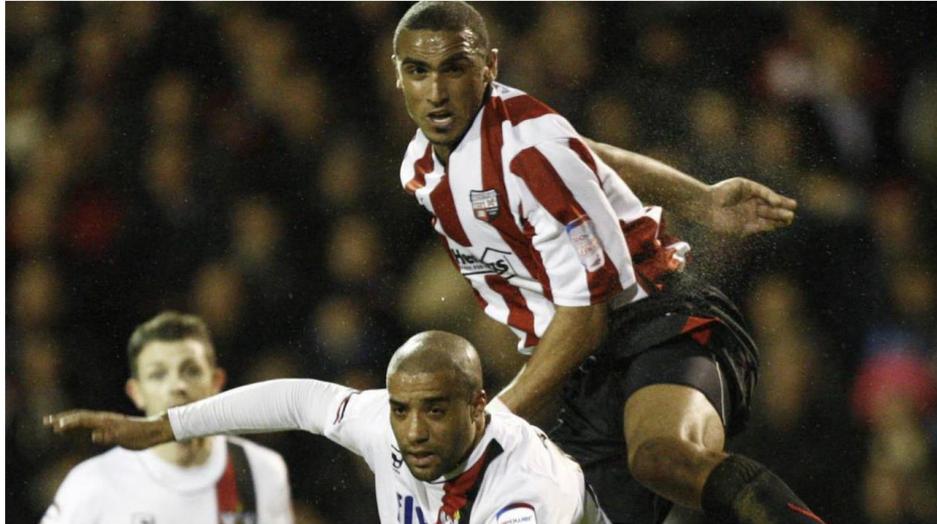
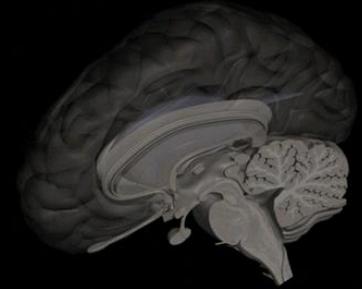
CRISIS CONVULSIVAS

MANEJO DE CRISIS FUERA DEL HOSPITAL



- DEJAR ACOSTADO, DECÚBITO LATERAL (RIESGO ASPIRACIÓN VÓMITO)
- DESPEJAR OBSTÁCULOS MECÁNICOS VÍA AÉREA (ROPA, PRÓTESIS DENTAL)
- PROTEGER LA CABEZA DE GOLPES
- SOLICITAR AYUDA
- NO INTRODUCIR **NADA** EN LA BOCA
- NO TIENE UTILIDAD AFIRMAR BRAZOS O LIMITAR MOVIMIENTOS
- CRISIS DURAN MENOS DE 1 MINUTO EN UN 91% DE CASOS: SIN RIESGO VITAL
- USO DE FÁRMACOS SI LOS TUVIERA INDICADO (RESCATAR ANTECEDENTES)

3. DEPORTES Y EPILEPSIA



Peter Cziborra/DIARIO AS

La **FA Cup**, una de las competiciones deportivas más antiguas del planeta, deja de nuevo una historia de superación. A las 18:31, el **Port Vale**, equipo que milita en la **League Two** inglesa y un club de la ciudad de **Burslem** en **Stoke-on-Trent** (conocido por ser el equipo del cantante **Robbie Williams**), saltará al **Etihad Stadium** de la ciudad de **Manchester** en la tercera ronda de la afamada Copa inglesa para medirse al conjunto de **Pep Guardiola**. Jugar ante un equipo de la Premier ya es un hito pero será todavía más para su capitán, **Leon Legge**.

INGLATERRA | FA CUP

Leon Legge: 18 años sufriendo epilepsia y capitán ante el City

La historia de superación del futbolista del Port Vale, rival de los de Guardiola en la tercera ronda de la Copa, recorre Inglaterra. Su historia la cuenta la BBC.



"La epilepsia no es una barrera"

El central siempre ha sido optimista y **nunca se ha dado por vencido**: "No es una barrera". No sufre convulsiones frecuentemente como antes, pero toma medicación todos los días para ayudar a controlar su epilepsia. Nunca ha tenido un ataque durante un partido aunque **la temporada pasada si que tuvo que perderse algún encuentro por precaución** tras sufrir en su casa cuatro ataques en un día: "Ha habido momentos en que me he acostado en casa estando bien y luego me he encontrado despertando en el hospital".

El capitán del Port Vale no está seguro si la enfermedad impidió que tuviera una carrera más prometedora: "Hice muchas pruebas y a menudo me preguntan si la epilepsia detuvo mi carrera. **No te lo van a decir a la cara, pero espero que no haya tenido nada que ver. La epilepsia no va a vencerme**".

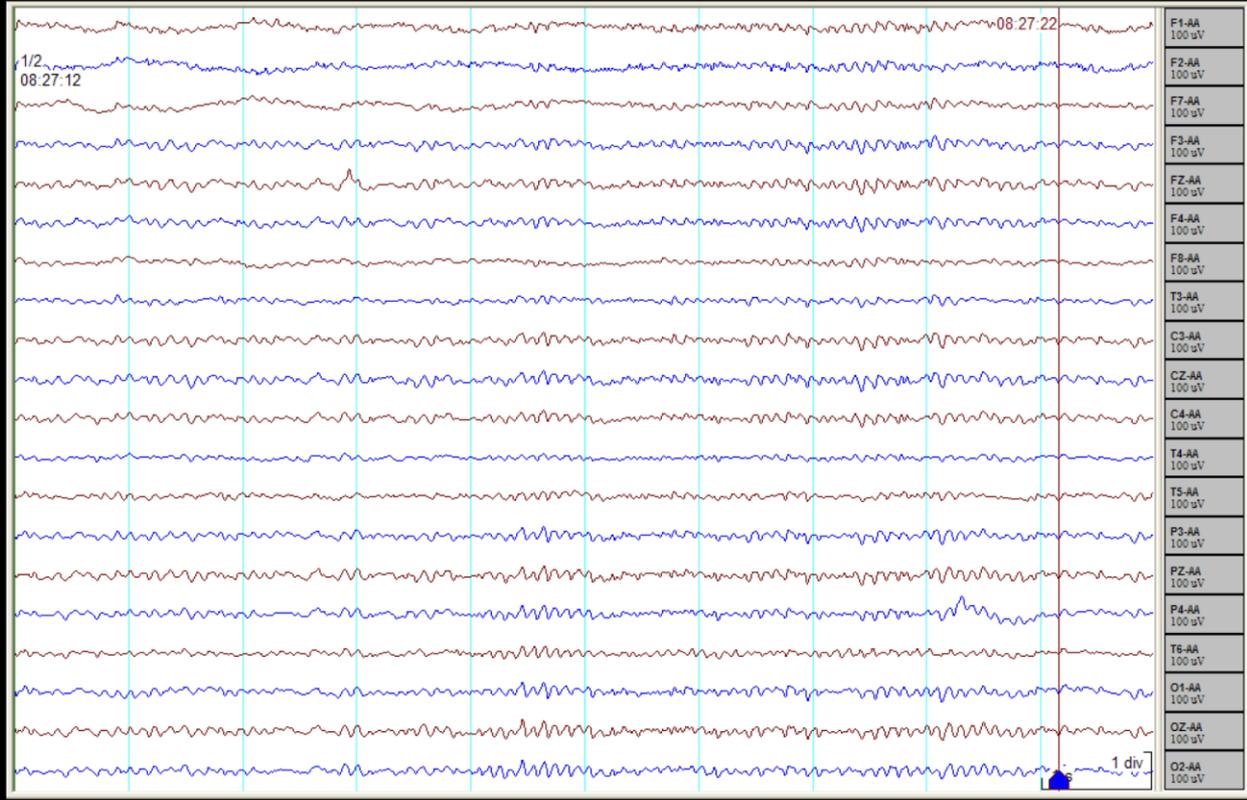
Leon Legge es embajador de una **organización benéfica 'Young Epilepsy'** que trabaja con jóvenes diagnosticados en el Reino Unido: "Quiero que las personas sepan cómo lidiar con la epilepsia. Siempre estoy abierto a hablar al respecto y, a menudo, los padres de niños con epilepsia me preguntan cómo lo hago".

El futbolista, que ha disputado casi 400 partidos oficiales, podrá portar este sábado el brazalete de capitán ante el **Manchester City** en un gran ejemplo superación.

4. ESTUDIO DE LA EPILEPSIA



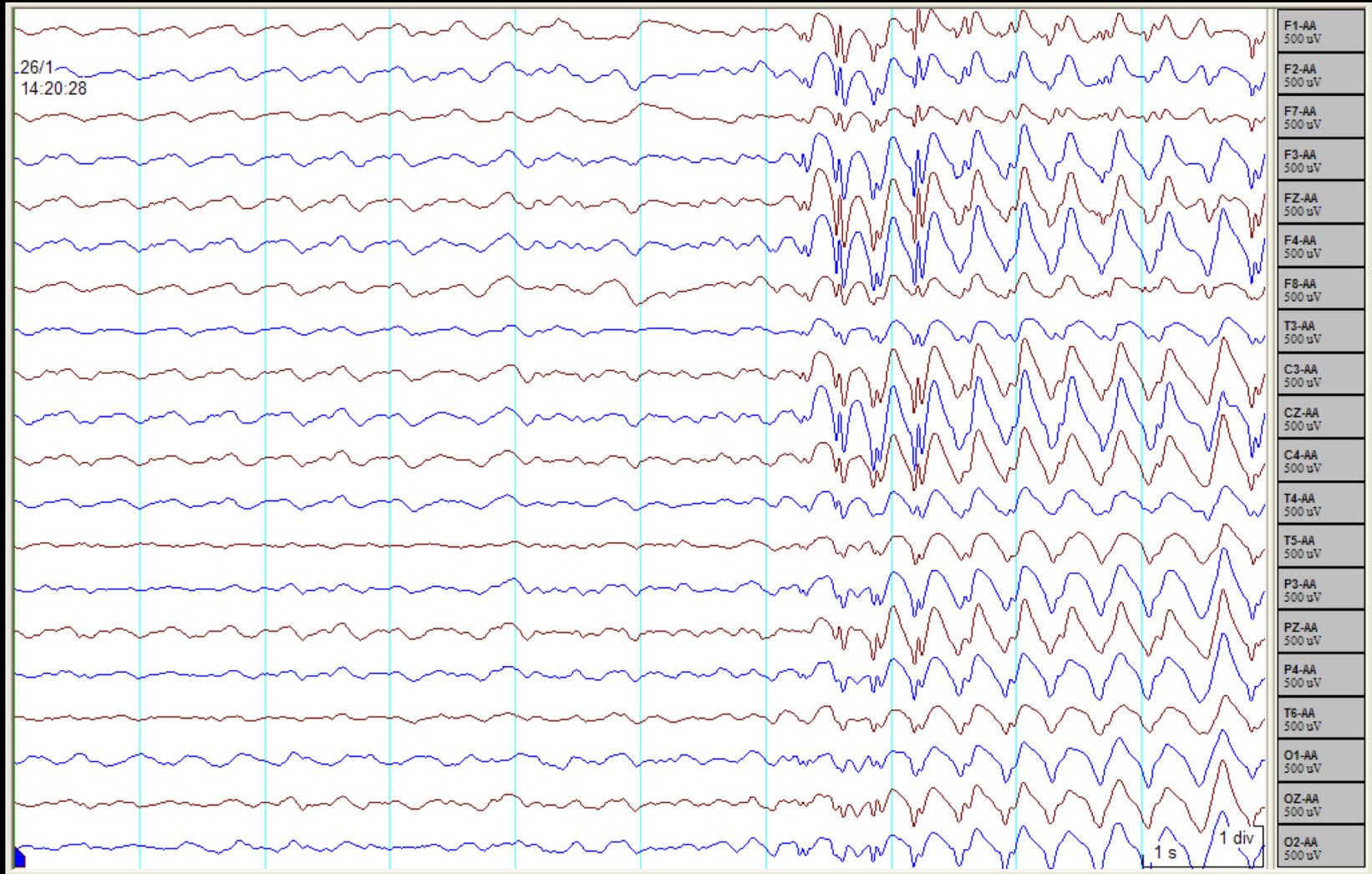
ELECTROENCEFALOGRAMA



4. ESTUDIO DE LA EPILEPSIA



ELECTROENCEFALOGRAMA

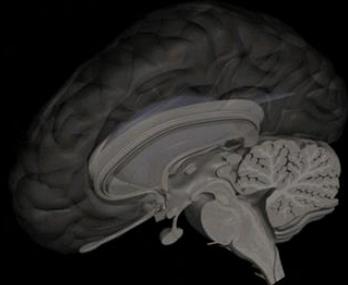


4. ESTUDIO DE LA EPILEPSIA

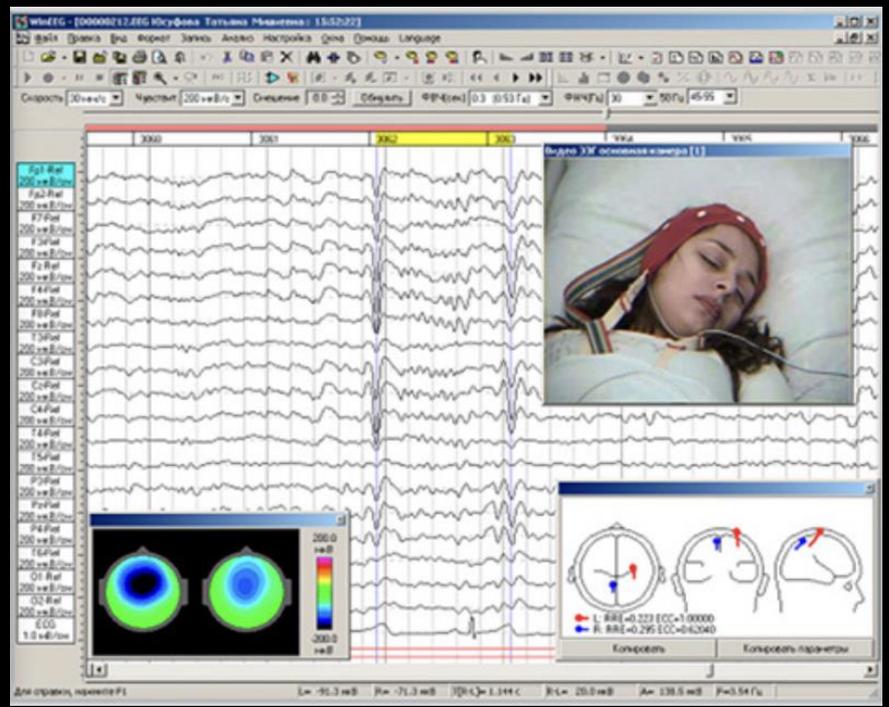
HOLTER ELECTROENCEFALOGRAMA



4. ESTUDIO DE LA EPILEPSIA

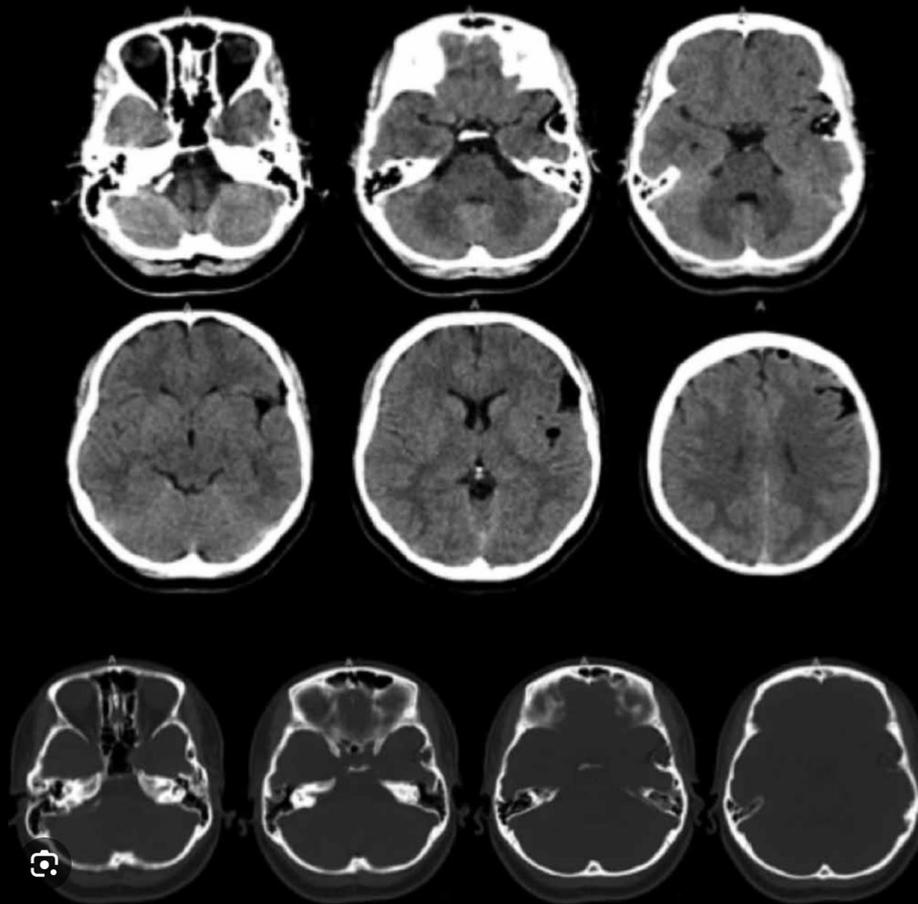
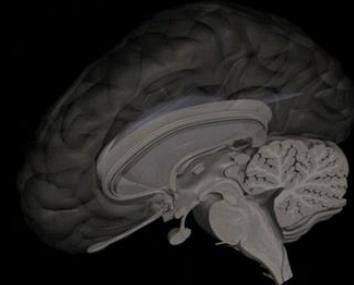


VIDEO-MONITOREO ELECTROENCEFALOGRAMA



4. ESTUDIO DE LA EPILEPSIA

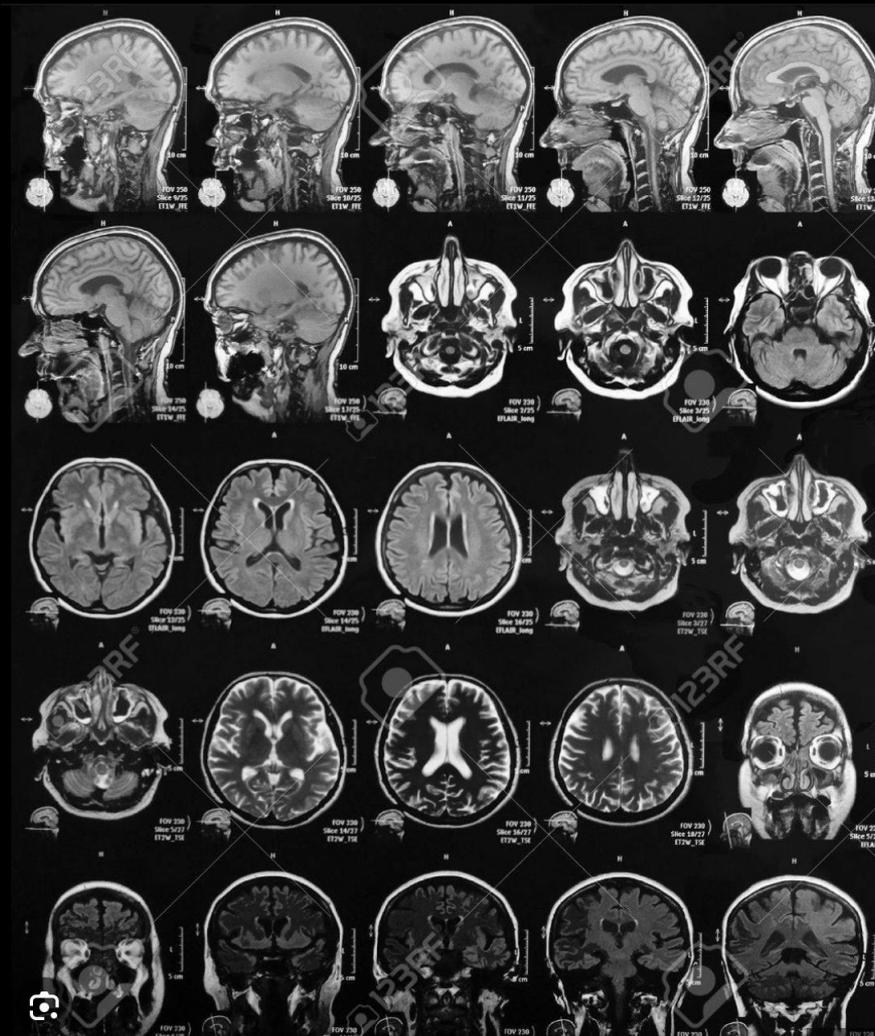
NEUROIMÁGENES: TAC CEREBRAL



4. ESTUDIO DE LA EPILEPSIA

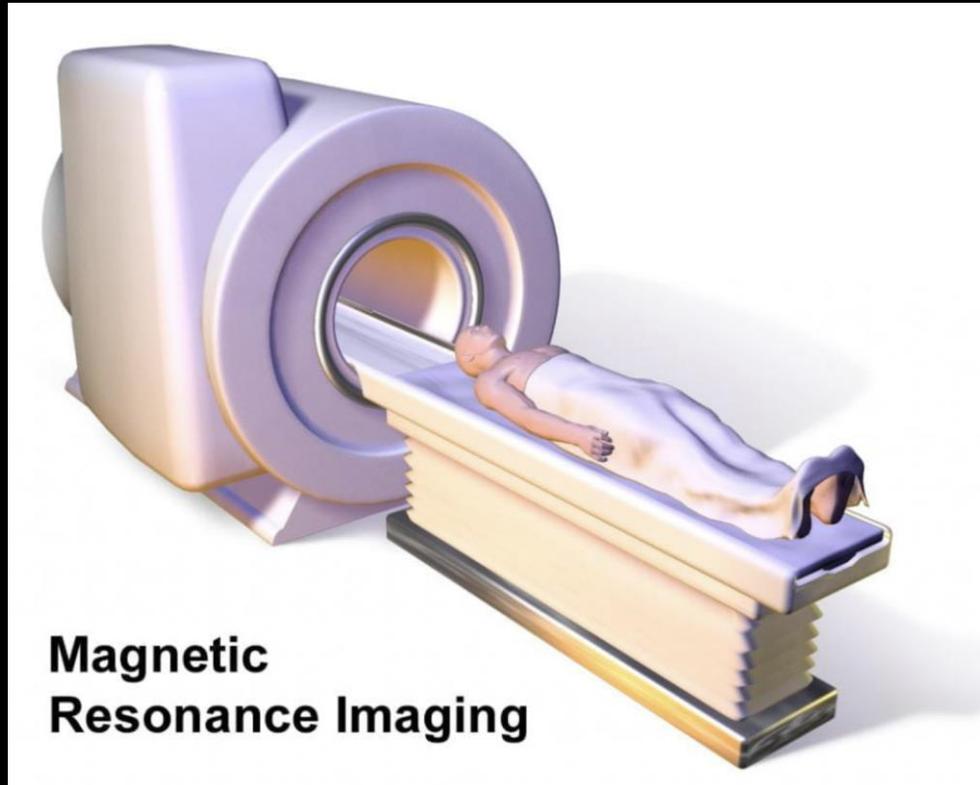


NEUROIMÁGENES: RMN CEREBRAL



4. ESTUDIO DE LA EPILEPSIA

NEUROIMÁGENES

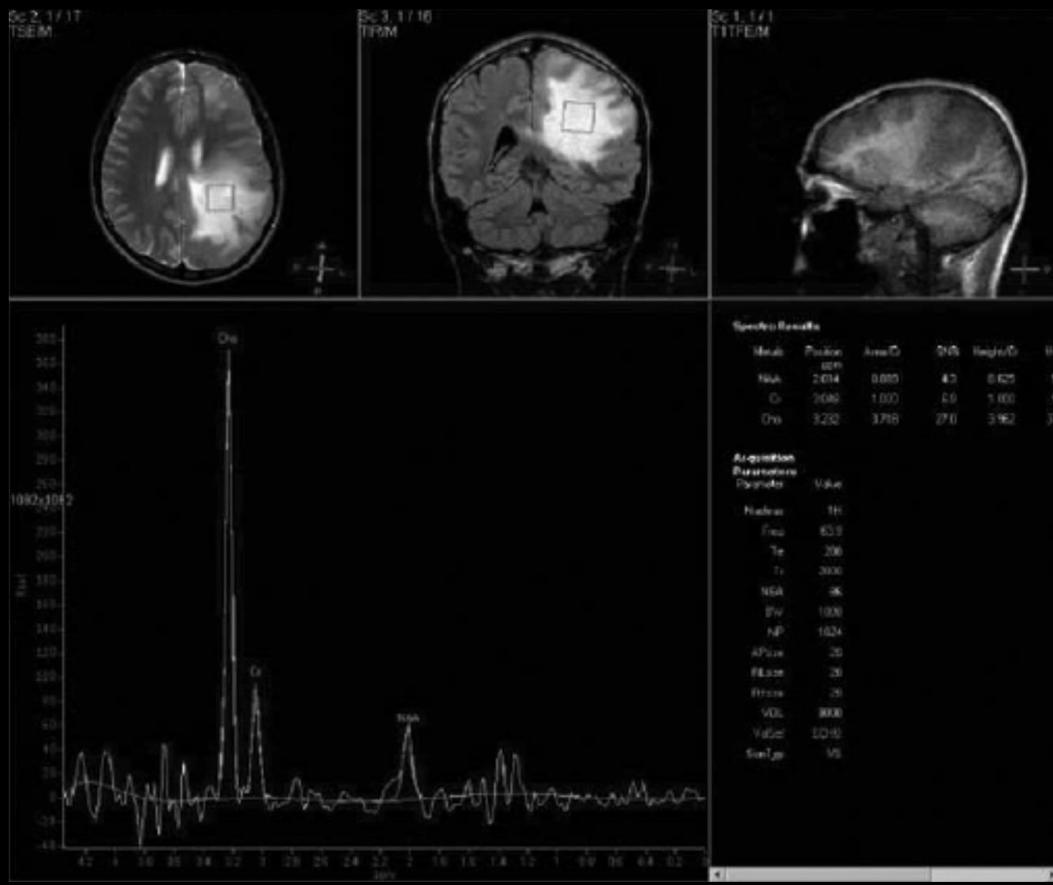


**Magnetic
Resonance Imaging**

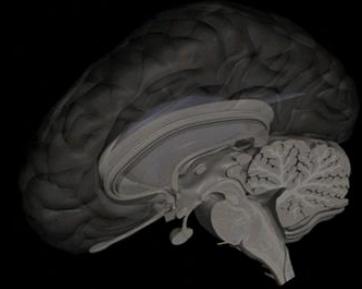
4. ESTUDIO DE LA EPILEPSIA



NEUROIMÁGENES: RMN CEREBRAL CON ESPECTROSCOPIA



4. ESTUDIO DE LA EPILEPSIA



NEUROIMÁGENES: PET-SCAN

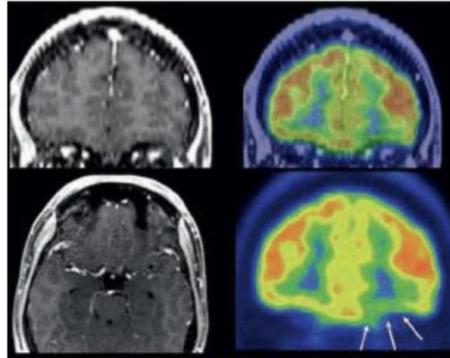
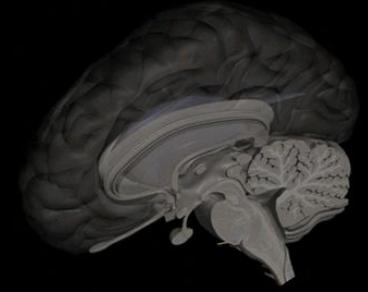


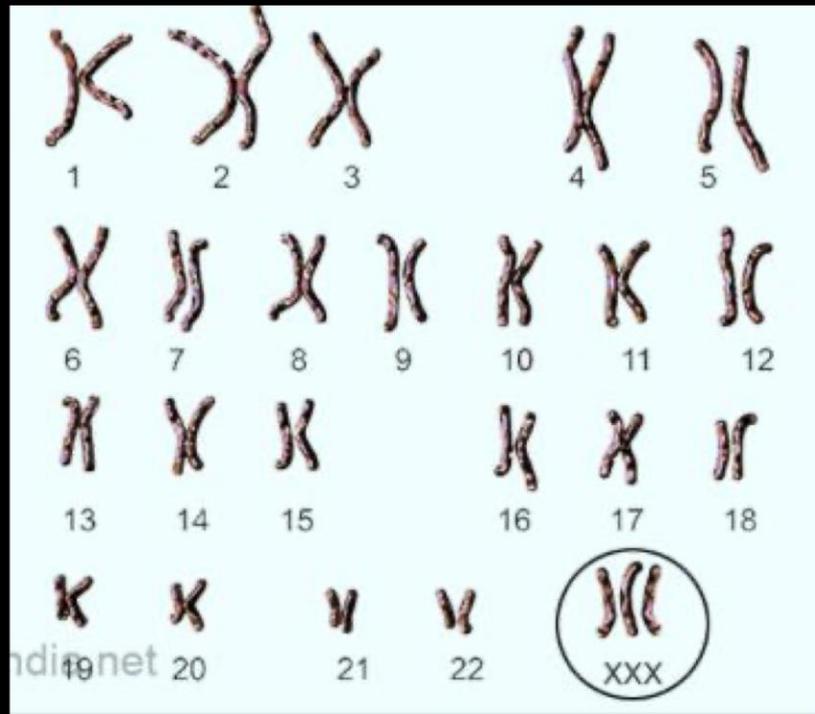
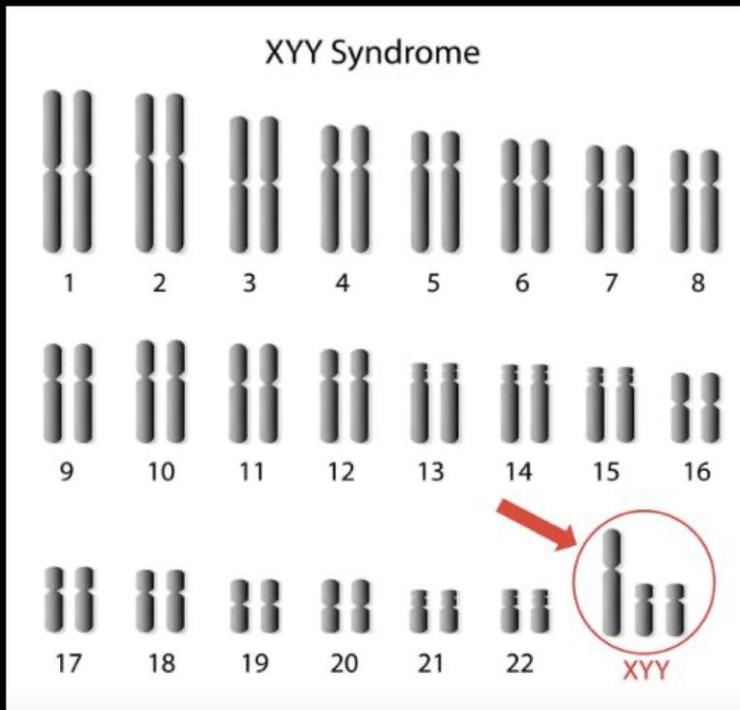
Figura 3.

A la izquierda: RM normal (secuencia T1 con gadolinio). A la derecha: Hipometabolismo frontal basal izquierdo (flechas). Una concordancia clínicoelétrica apoya la cirugía aún con RM normal.

4. ESTUDIO DE LA EPILEPSIA



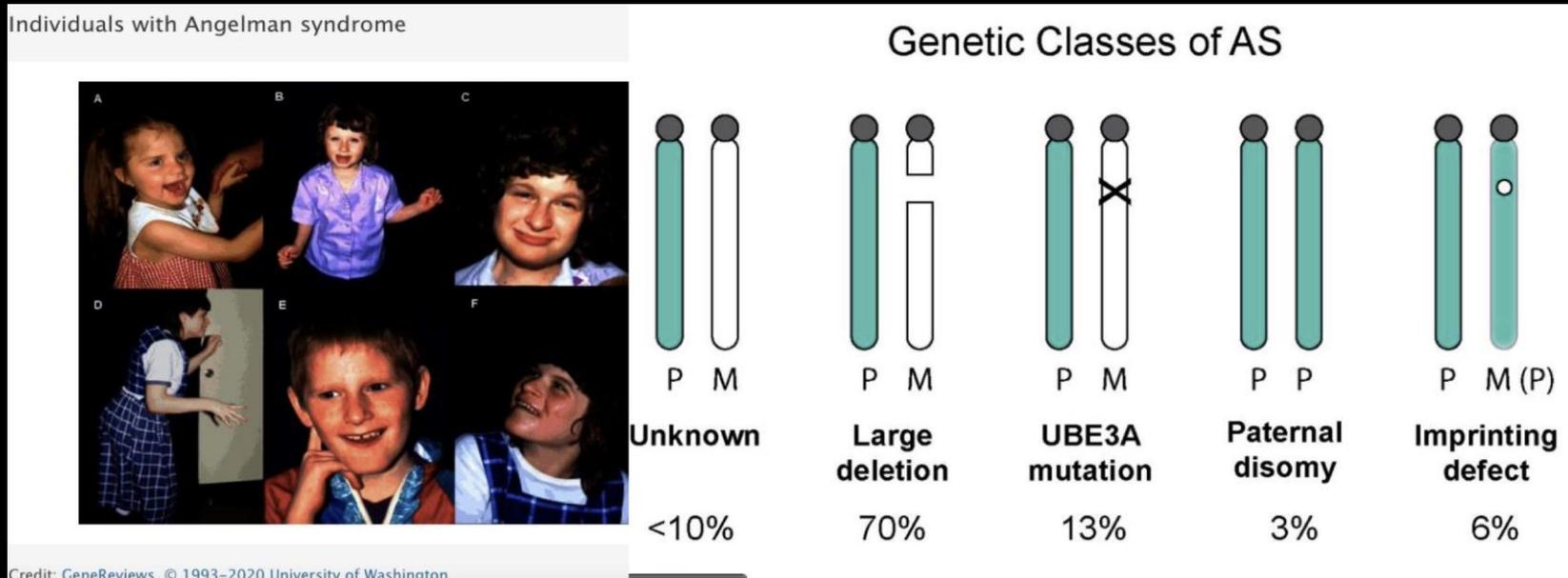
ESTUDIO GENÉTICO: CARIOGRAMA



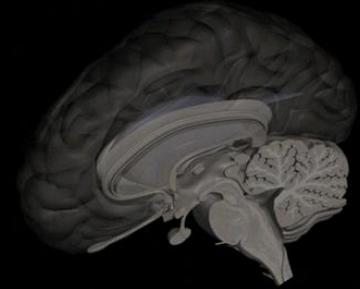
4. ESTUDIO DE LA EPILEPSIA



ESTUDIO GENÉTICO: ESTUDIOS GENÉTICOS PARA SÍNDROMES ESPECÍFICOS



4. ESTUDIO DE LA EPILEPSIA



ESTUDIO GENÉTICO: ESTUDIOS GENÉTICOS PARA SÍNDROMES ESPECÍFICOS

- Invitae Epilepsy Panel

Summary

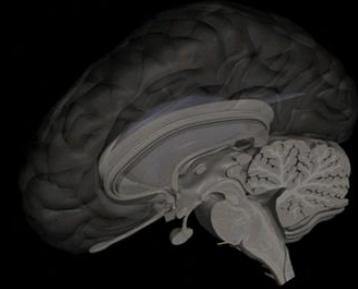
Positive result. Pathogenic variant identified in **SCN1A**.

Variants of Uncertain Significance identified in **GLDC**, **KCNH2** and **SCN5A**.

Clinical Summary

- A Pathogenic variant, c.2593C>T (p.Arg865*), was identified in **SCN1A**.
 - The **SCN1A** gene is associated with a spectrum of autosomal dominant seizure disorders ranging from simple febrile seizures (MedGen UID: 338959) and genetic epilepsy with febrile seizures plus (GEFS+) (MedGen UID: 388117) to Dravet syndrome (MedGen UID: 148243) and intractable childhood epilepsy with generalized tonic-clonic seizures (ICE-GTC) (MedGen UID: 148243). Other **SCN1A**-related conditions have been reported (OMIM: 607208).
 - This result is consistent with a predisposition to, or diagnosis of, **SCN1A**-related conditions.
 - **SCN1A**-related conditions are seizure disorders with varying severity and early childhood onset. Febrile seizures are childhood seizures that occur with fever and often resolve by six years of age. GEFS+ is also characterized by febrile seizures; however with GEFS+, both febrile and afebrile seizures may continue throughout an affected individual's lifetime. Dravet syndrome is one of the most severe seizure disorders and is characterized by intractable seizures and usually associated with progressive dementia. ICE-GTC is considered a late-onset Dravet syndrome. Intrafamilial variability in seizure type, persistence, and response to treatment has been documented, as has reduced penetrance (<http://www.orpha.net/data/patho/GB/uk-GEFS.pdf>).
 - Close relatives (children, siblings, and parents) have up to a 50% chance of being a carrier of this variant. More distant relatives may also be carriers. Parental testing may clarify the inheritance of this variant and may inform recurrence risk and risk for other close relatives. Testing for this variant is available.

4. ESTUDIO DE LA EPILEPSIA



ESTUDIO GENÉTICO: PÁNELES DE EPILEPSIA

www.doctorpatricioguerro.cl/clases/sindrome_convulsivo_epilepsia_2022.pdf Invitae Epilepsy Panel | Test catalog | Invitae

INVITAE Providers Patients & Individuals Partners

Test catalog > Invitae Epilepsy Panel



Invitae Epilepsy Panel

Test code: 03401 • Up to 320 genes

Sponsored testing
In addition to insurance and patient-pay billing options, this test is also available through a sponsored, no-charge testing program.
[Behind the Seizure®](#) [Behind the Seizure® Australia](#) [Behind the Seizure®](#)

Test description

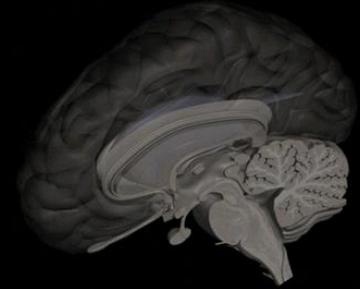
The Invitae Epilepsy Panel analyzes genes that are associated with both syndromic and nonsyndromic causes of epilepsy, a common neurological disease characterized by recurrent, unprovoked seizures. These genes were curated based on the available evidence to date in order to provide analysis for epilepsy. Some genes in this test may also be associated with additional unrelated disorders, which are not included in the list of disorders tested. Genetic testing of these genes may help confirm a clinical diagnosis, help predict disease prognosis and progression, facilitate early detection of symptoms, inform family planning and genetic counseling, or promote enrollment in clinical trials.

Order test

✓ Primary panel
302 genes selected

✓ AARS	✓ ABAT	✓ ADAR	✓ ADSL
✓ ALDH5A1	✓ ALDH7A1	✓ ALG1	✓ ALG12
✓ ALG13	✓ ALG6	✓ AMACR	✓ AMT
✓ AP2M1	✓ AP3B2	✓ ARG1	✓ ARHGEP9
✓ ARSA	✓ ARX	✓ ASAH1	✓ ASNS
✓ ATAD1	✓ ATP1A1	✓ ATP1A2	✓ ATP1A3
✓ ATP6AP2	✓ ATP7A	✓ ATRX	✓ BRAT1
✓ C12orf57	✓ CACNA1A	✓ CACNA1B	✓ CACNA1E
✓ CACNA2D2	✓ CAD	✓ CAMK2B	✓ CARS2
✓ CASK	✓ CCDC88A	✓ CDKL5	✓ CHD2
✓ CHRNA2	✓ CHRNA4	✓ CHRNB2	✓ CLCN4
✓ CLCN6	✓ CLN2 (TPP1)	✓ CLN3	✓ CLN5
✓ CLN6	✓ CLN8	✓ CLTC	✓ CNTN2
✓ CNTNAP2	✓ COG5	✓ COL18A1	✓ CSTB
✓ CTNNB1	✓ CTSB	✓ CYFIP2	✓ CYP27A1
✓ DDC	✓ DDX3X	✓ DEAF1	✓ DENND5A
✓ DEPDC5	✓ DHDDS	✓ DHFR	✓ DIAPH1
✓ DMXL2	✓ DNAAF5	✓ DNMI1	✓ DNMI1L
✓ DOCK7	✓ DYNC1H1	✓ DYRK1A	✓ ECHS1

4. ESTUDIO DE LA EPILEPSIA



ESTUDIO GENÉTICO: PÁNELES DE EPILEPSIA

The screenshot shows the CentoGene website interface. At the top, there is a navigation bar with links for Home, CentoPortal®, and Investors. The main header features the CentoGene logo (THE RARE DISEASE COMPANY) and a menu with About Us, Diagnostics (highlighted), Pharma, Patient, and Resources. A search bar is located on the right. Below the header, a row of product categories is displayed, with 'Epilepsy panel' selected. The main content area is titled 'Epilepsy panel' and includes a descriptive paragraph, technical specifications (No. of genes: 783, TAT: 25 days, Coverage: ≥99.00% ≥20x, Details: NGS including CNV analysis, Repeat expansion analysis: CSTB), and buttons for 'Order now' and 'Sample Requirements'. A secondary button links to an 'Overview of genes with associated diseases in OMIM'. On the right side, a section titled 'COMMON SYNDROMES AND DISORDERS COVERED' lists 18 conditions.

Home CentoPortal® Investors

CENTOGENE
THE RARE DISEASE COMPANY

About Us **Diagnostics** Pharma Patient Resources

Enter your search term

Ataxia / Spastic paraplegia panel Ataxia repeat expansion panel CentoCU® CentoMito comprehensive CentoMito Genome CentoNeuro Amyotrophic lateral sclerosis (ALS) / Dementia panel **Epilepsy panel**

Intellectual disability panel Neuromuscular panel Parkinson's disease panel

Epilepsy panel

While some types of seizures are easily categorized (i.e., partial or generalized), others are not or might later develop into different types – i.e., partial seizures with secondary generalization – making targeted panel testing less likely to succeed at reaching a diagnosis. Our **epilepsy panel** is phenotype-directed and covers different types of seizure syndromes, covering Dravet syndrome, early infantile epileptic encephalopathy, epilepsy partial, epilepsy generalized, epilepsy absence, myoclonic epilepsy panel, and hypomagnesemia. In addition, our panel includes mitochondrial and nuclear mitochondrial genes (i.e., genes causing myoclonic epilepsy with ragged red fibers –MERRF–).

No. of genes: 783
TAT: 25 days
Coverage: ≥99.00% ≥20x
Details: NGS including CNV analysis
Repeat expansion analysis: *CSTB*

[Order now](#) [Sample Requirements](#)

[Overview of genes with associated diseases in OMIM](#)

COMMON SYNDROMES AND DISORDERS COVERED

- Aicardi-Goutieres syndrome
- Brain iron accumulation syndromes
- Congenital glycosylation disease
- Dravet syndrome
- Early infantile epileptic encephalopathy
- Epilepsy
- Epilepsy (absence) in childhood
- Epilepsy (generalized) with febrile seizures
- Epilepsy (partial)
- Epileptic encephalopathy
- Hypomagnesemia
- Leigh syndrome
- Leukodystrophy and peroxisome biogenesis disorders
- Lysosomal storage disease
- Mitochondrial DNA depletion
- Mitochondrial encephalomyopathy
- Muscular dystrophy-dystroglycanopathy
- Myoclonic epilepsy
- Urea cycle disorder

4. ESTUDIO DE LA EPILEPSIA



ESTUDIO GENÉTICO: ESTUDIO COMPLETO DE ADN



RESULT: POSITIVE

One Pathogenic variant identified in PRRT2. PRRT2 is associated with a spectrum of autosomal dominant neurological conditions.

Additional Variant(s) of Uncertain Significance identified.

GENE	VARIANT	ZYGOSITY	VARIANT CLASSIFICATION
PRRT2	Deletion (Entire coding sequence)	heterozygous	PATHOGENIC
GABRD	c.523G>A (p.Glu175Lys)	heterozygous	Uncertain Significance
RYR3	c.10508G>A (p.Arg3503His)	heterozygous	Uncertain Significance
RYR3	c.13127G>C (p.Arg4376Pro)	heterozygous	Uncertain Significance
SUOX	c.1334T>C (p.Ile445Thr)	heterozygous	Uncertain Significance

About this test

This diagnostic test evaluates 192 gene(s) for variants (genetic changes) that are associated with genetic disorders. Diagnostic genetic testing, when combined with family history and other medical results, may provide information to clarify individual risk, support a clinical diagnosis, and assist with the development of a personalized treatment and management strategy.

4. ESTUDIO DE LA EPILEPSIA

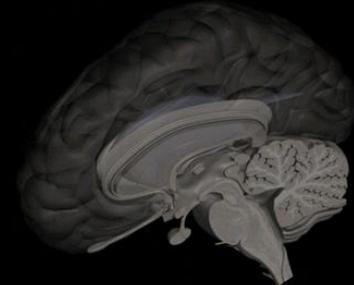
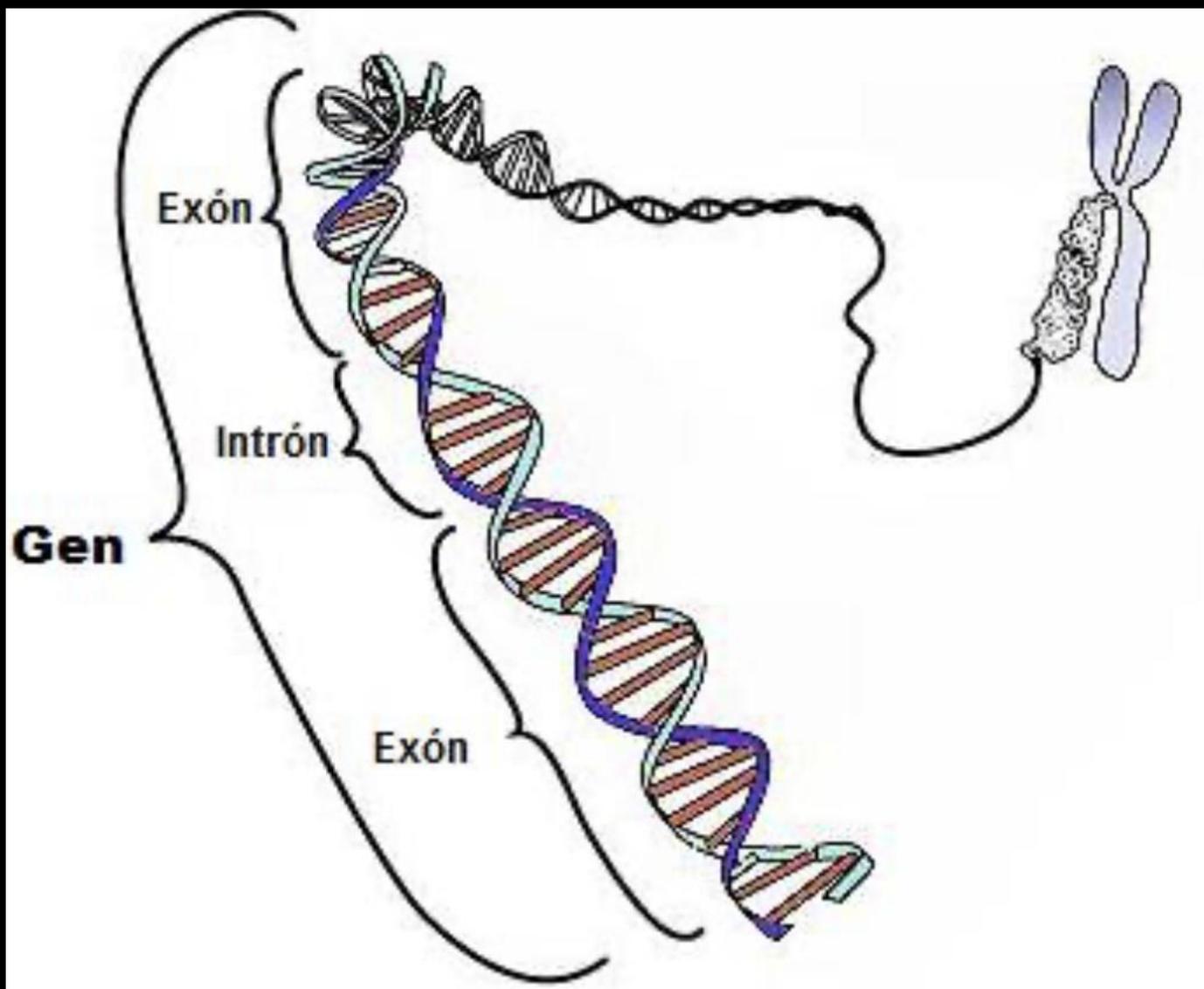


ESTUDIO GENÉTICO: ESTUDIO COMPLETO DE ADN

Clinical summary

A Pathogenic variant, Deletion (Entire coding sequence), was identified in PRRT2.

- The PRRT2 gene is associated with a spectrum of related autosomal dominant neurological conditions (MedGen UID: 358268) including episodic kinesigenic dyskinesia 1 (EKD1), benign familial infantile seizures 2 (BFIS2), and familial infantile convulsions with paroxysmal choreoathetosis (ICCA).
- This result is consistent with a predisposition to, or diagnosis of, PRRT2-related conditions.
- There is clinical overlap between the neurological manifestations caused by pathogenic variants in the PRRT2 gene (PMID: 23343561, 22782515). EKD1 is characterized by attacks of involuntary sudden movements triggered by sudden voluntary movements (PMID: 22101681, 10737119). Attacks consist mostly of dystonic and paroxysmal choreoathetotic movements (PMID: 24262166). Onset typically occurs in childhood or adolescence and attacks usually last several minutes and may appear up to 100 times per day (PMID: 22101681). BFIS is characterized by infantile-onset seizures which typically have a good medication response and remit before two years of age (PMID: 15144424). ICCA is characterized by infantile-onset afebrile seizures and attacks of involuntary movement (PMID: 22243967). Clinical features, age of onset, and severity of symptoms vary within, as well as between, families (PMID: 23343561, 22782515, 22399141).
- Biological relatives have a chance of being at risk for PRRT2-related conditions and should consider testing if clinically appropriate.
- While confirmation of this result by an alternate method is not available due to technical limitations, there is high confidence that this variant is a true result.

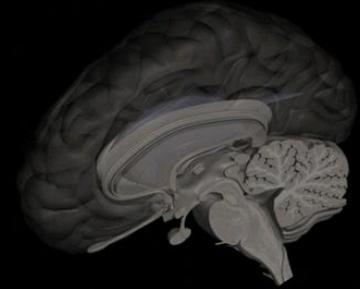




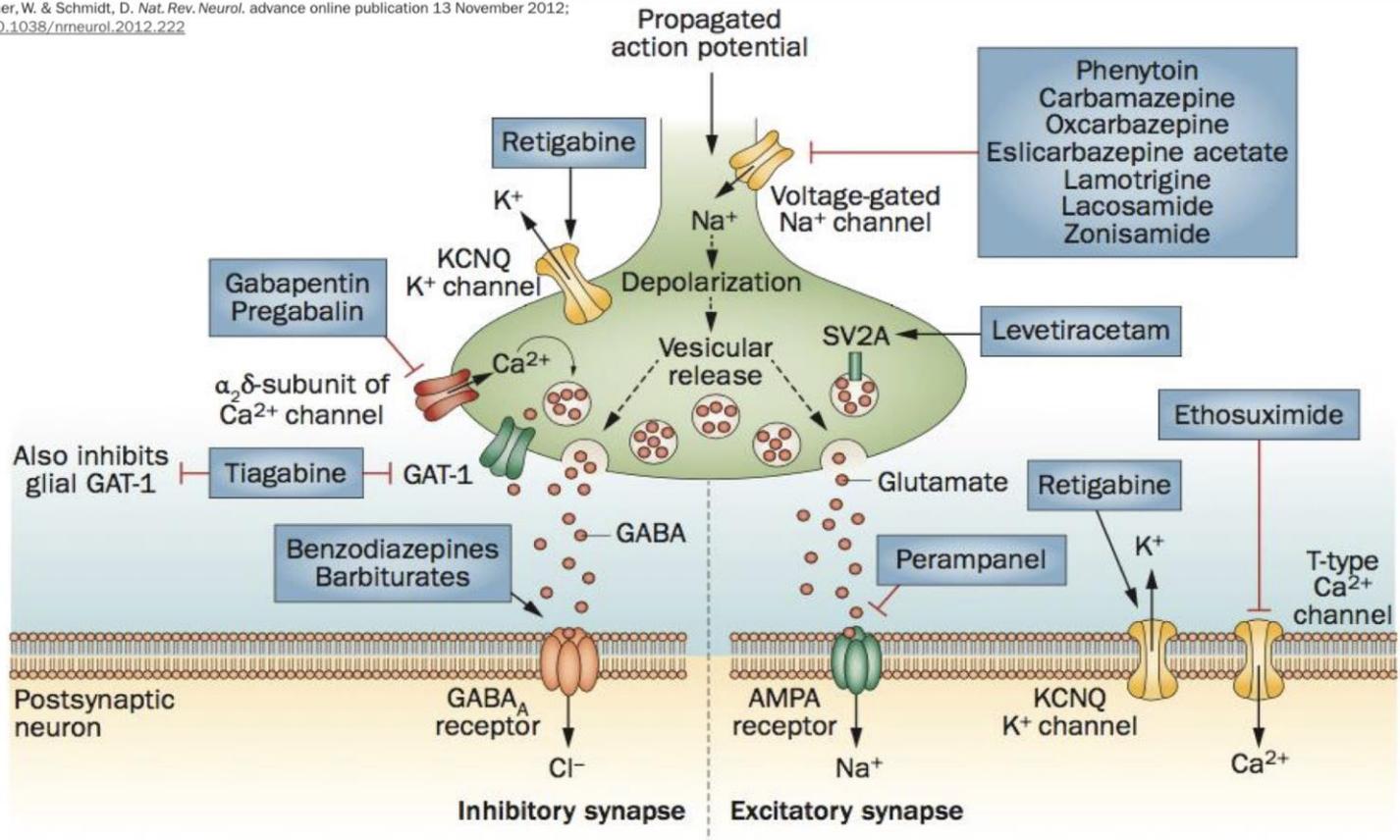
5. NUEVAS TERAPIAS EN EPILEPSIA: FÁRMACOS



5. NUEVAS TERAPIAS EN EPILEPSIA



Löscher, W. & Schmidt, D. *Nat. Rev. Neurol.* advance online publication 13 November 2012;
doi:10.1038/nrneuro.2012.222



Not illustrated:

- Vigabatrin → ↓ GABA degradation
- and drugs with multiple mechanisms:
- Valproate → ↑ GABA turnover, ↓ Na⁺ channels, ↓ NMDA receptors
- Topiramate → ↓ Na⁺ channels, ↓ AMPA/kainate receptors, ↑ GABA_A receptors
- Felbamate → ↓ Na⁺ channels, ↑ GABA_A receptors, ↓ NMDA receptors

5. NUEVAS TERAPIAS EN EPILEPSIA



M.J. Brodie, G.J. Sills/Seizure 20 (2011) 369–375

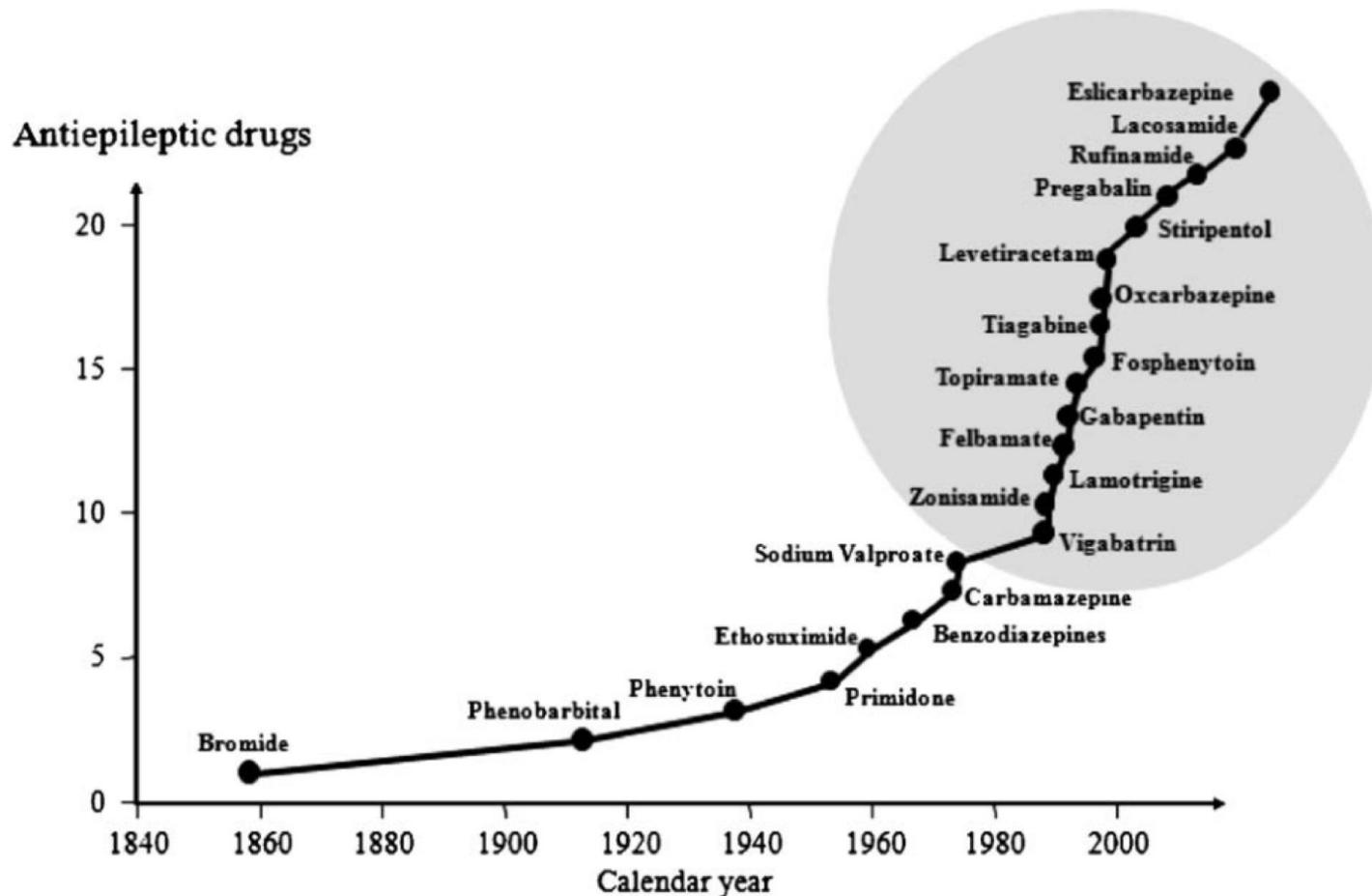
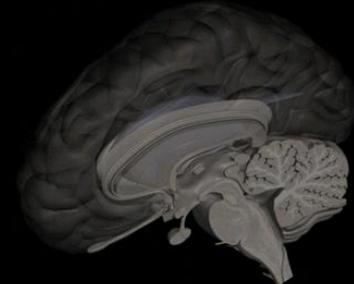


Fig. 1. Chronology of antiepileptic drug introduction over the past 150 years.

5. NUEVAS TERAPIAS EN EPILEPSIA



JAMA Neurology | Original Investigation

Efficacy and Safety of XEN1101, a Novel Potassium Channel Opener, in Adults With Focal Epilepsy A Phase 2b Randomized Clinical Trial

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IMPORTANCE Many patients with focal epilepsy experience seizures despite treatment with currently available antiseizure medications (ASMs) and may benefit from novel therapeutics.

OBJECTIVE To evaluate the efficacy and safety of XEN1101, a novel small-molecule selective Kv7.2/Kv7.3 potassium channel opener, in the treatment of focal-onset seizures (FOSs).

DESIGN, SETTING, AND PARTICIPANTS This phase 2b, randomized, double-blind, placebo-controlled, parallel-group, dose-ranging adjunctive trial investigated XEN1101 over an 8-week treatment period from January 30, 2019, to September 2, 2021, and included a 6-week safety follow-up. Adults experiencing 4 or more monthly FOSs while receiving stable treatment (1-3 ASMs) were enrolled at 97 sites in North America and Europe.

INTERVENTIONS Patients were randomized 2:1:1:2 to receive XEN1101, 25, 20, or 10 mg, or placebo with food once daily for 8 weeks. Dosage titration was not used. On completion of the double-blind phase, patients were offered the option of entering an open-label extension (OLE). Patients not participating in the OLE had follow-up safety visits (1 and 6 weeks after the final dose).

MAIN OUTCOMES AND MEASURES The primary efficacy end point was the median percent change from baseline in monthly FOS frequency. Treatment-emergent adverse events (TEAEs) were recorded and comprehensive laboratory assessments were made. Modified intention-to-treat analysis was conducted.

RESULTS A total of 325 patients who were randomized and treated were included in the safety analysis; 285 completed the 8-week double-blind phase. In the 325 patients included, mean (SD) age was 40.8 (13.3) years, 168 (51.7%) were female, and 298 (91.7%) identified their race as White. Treatment with XEN1101 was associated with seizure reduction in a robust dose-response manner. The median (IQR) percent reduction from baseline in monthly FOS frequency was 52.8% ($P < .001$ vs placebo; IQR, -80.4% to -16.9%) for 25 mg, 46.4% ($P < .001$ vs placebo; IQR, -76.7% to -14.0%) for 20 mg, and 33.2% ($P = .04$ vs placebo; IQR, -61.8% to 0.0%) for 10 mg, compared with 18.2% (IQR, -37.3% to 7.0%) for placebo. XEN1101 was generally well tolerated and TEAEs were similar to those of commonly prescribed ASMs, and no TEAEs leading to death were reported.

CONCLUSIONS AND RELEVANCE The efficacy and safety findings of this clinical trial support the further clinical development of XEN1101 for the treatment of FOSs.

TRIAL REGISTRATION ClinicalTrials.gov Identifier: NCT03796962

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 Visual Abstract
 Supplemental content

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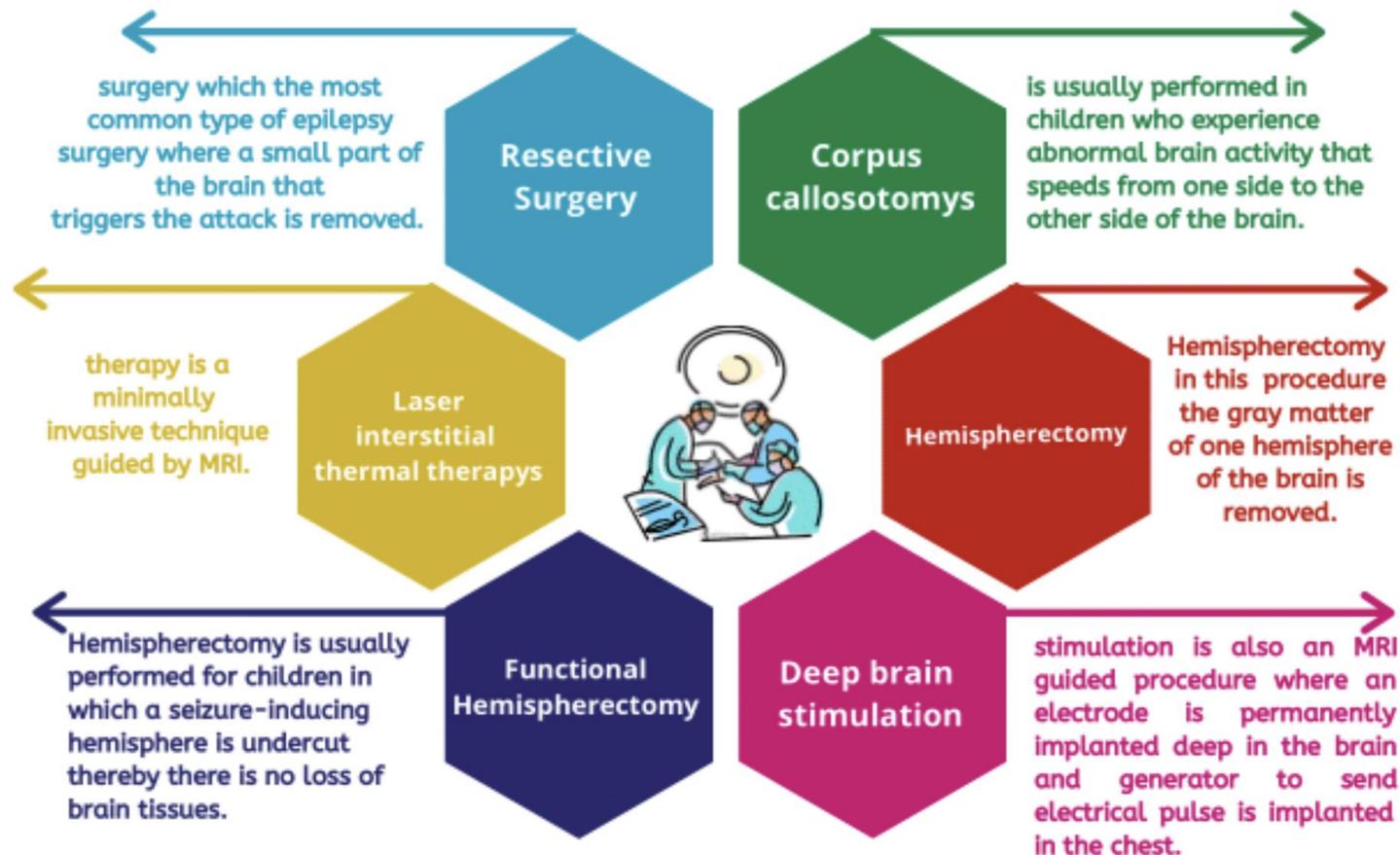
5. NUEVAS TERAPIAS EN EPILEPSIA: DIETAS



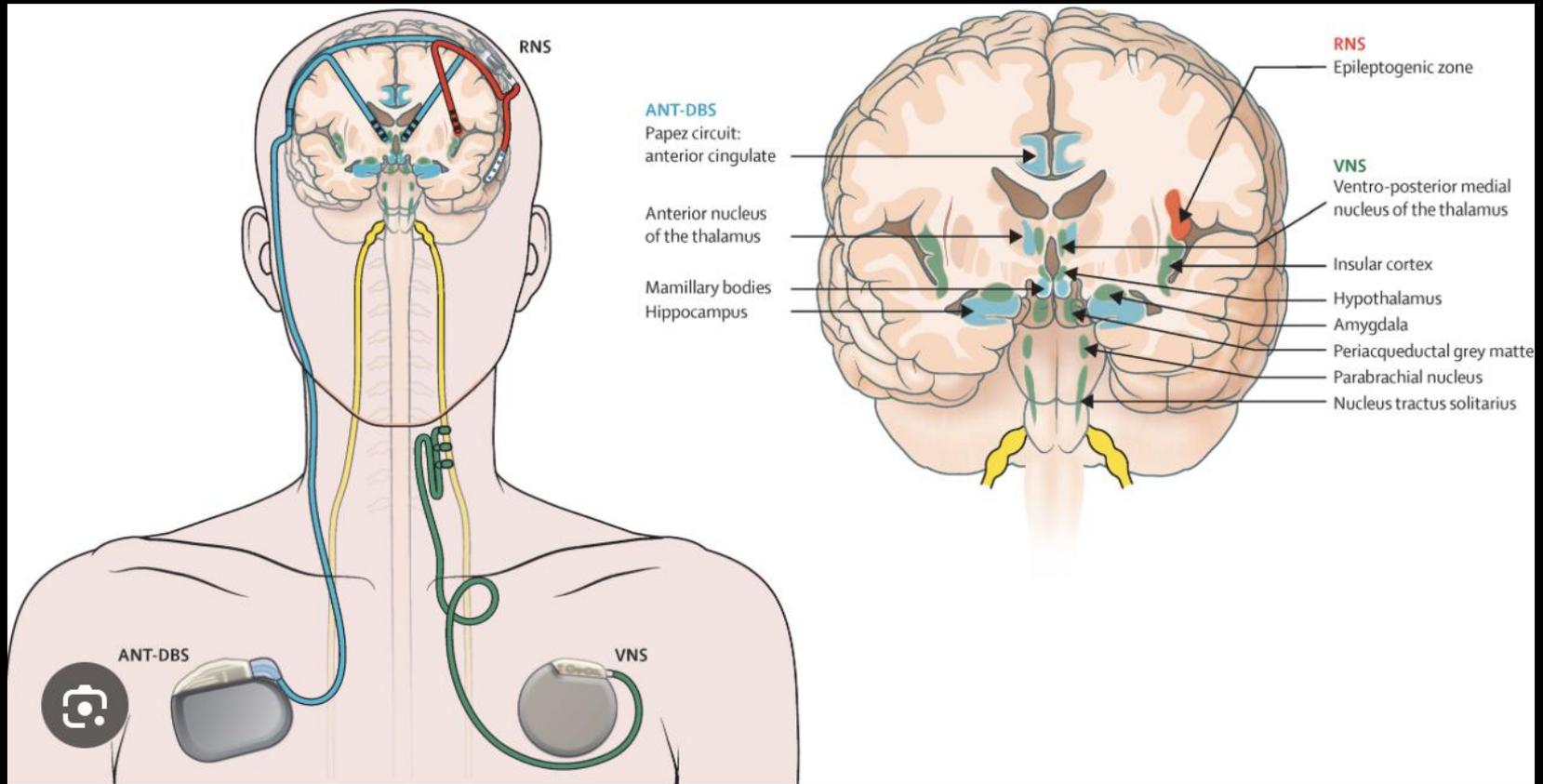
5. NUEVAS TERAPIAS EN EPILEPSIA: CIRUGÍA DE EPILEPSIA



Types of Epilepsy Surgery



5. NUEVAS TERAPIAS EN EPILEPSIA: CIRUGÍA DE EPILEPSIA



Neuromodulation in epilepsy: state-of-the-art approved therapies - The Lancet Neurology

Visitar >

6. NUEVAS TECNOLOGÍAS DE APOYO EN EL PACIENTE CON EPILEPSIA



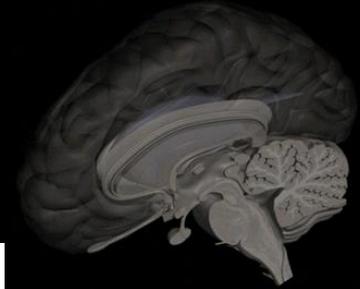
6. NUEVAS TECNOLOGÍAS DE APOYO EN EL PACIENTE CON EPILEPSIA



- ✓ Shaking or Jerking
- ✓ Muscle Stiffening
- ✓ Twitching or Trembling
- ✓ Spasms or Convulsions
- ✓ Face grimacing
- ✓ Eye fluttering
- ✓ Wagging of extremities
- ✓ Pedaling
- ✓ Kicking
- ✓ Rocking
- ✓ Pelvic thrusting
- ✓ Sleep walking
- ✓ Restless legs



6. NUEVAS TECNOLOGÍAS DE APOYO EN EL PACIENTE CON EPILEPSIA



SOS Smartwatch



- **Price:** \$\$

Smartwatches for people with epilepsy can detect movements that may indicate a person is having a seizure. These watches can have a variety of features: Some sound an alarm to signal for help, while others send a message to a caretaker with a person's GPS location.

One example is the SOS Smartwatch, which is advertised as the modern-day alternative to traditional medical alert systems, no smartphone required. If you feel like you're about to have a seizure or another medical emergency, you press the SOS button and the company's medical operators will answer. They'll track your location, notify your emergency contacts, and send 911 services if needed.

✓ Pros

- The smartwatch doesn't require a smartphone to use.
- It's water-resistant.
- It has GPS tracking.
- The battery life is 18 hours, according to the company.

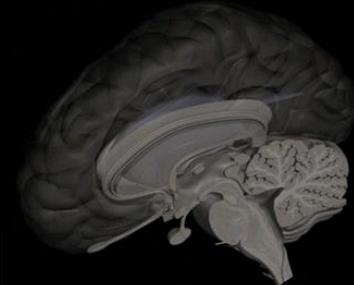
✗ Cons

- You'll need to pay an additional \$30/month for 24/7 alert system access.

Was this helpful?  

healthline

6. NUEVAS TECNOLOGÍAS DE APOYO EN EL PACIENTE CON EPILEPSIA



SeizAlarm: Seizure Detection



- **Price:** free 2-week trial, then \$—\$\$ depending on membership

This iPhone and Apple Watch app detects seizure-like movement or a low or elevated heart rate and automatically notifies your emergency contacts. You can also manually request help by pressing the Watch Help buttons, or even send a time-delayed request if you feel an aura and want to initiate a help request in case it turns into a full-blown seizure.

I regularly have auras that end up passing on their own, so I appreciate this feature. This app even includes a log dashboard where you can export reports to share with your doctor.

✓ Pros

- It's great for people who are nonverbal or who become nonverbal during seizures.
- It includes heart rate monitor and motion sensor.
- It tracks GPS location.

✗ Cons

- You must have an Apple Watch to effectively detect motion.
- It can be glitchy.
- You must pay to have the ability to request help.

6. NUEVAS TECNOLOGÍAS DE APOYO EN EL PACIENTE CON EPILEPSIA



embrace 2

Keeping you connected to your loved ones during emergencies

Embrace2 is the only FDA-cleared wrist-worn wearable in epilepsy. It detects possible convulsive seizures and instantly alerts caregivers, whether they're sleeping next door or are living miles away. Created to offer round-the-clock safety and comfort, to help people with epilepsy get help when they need it most.

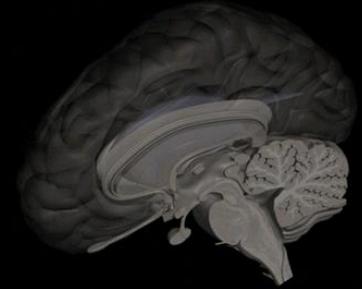
Order Now

30-day free trial

Embrace requires a designated smartphone. [Learn more](#)
[indications for use](#)



6. NUEVAS TECNOLOGÍAS DE APOYO EN EL PACIENTE CON EPILEPSIA



mjn-neuro

PRODUCTOS ▾ BLOG ▾ EPILEPSIA RECURSOS ▾ QUIENES SOMOS ▾ ES ▾

¿Por qué iniciamos este proyecto?

mjn-neuro nace porque uno de sus fundadores tiene una hija con epilepsia. Este hecho ha sido uno de los principales motores para el desarrollo de este proyecto, un dispositivo que pretende mejorar de forma muy importante la calidad de vida de las personas con epilepsia.

[Ver vídeo](#)

Ya está disponible el vídeo del acto de presentación de **mjn-SERAS** en nuestro canal de YouTube.

7. CANNABIS Y EPILEPSIA



7. CANNABIS Y EPILEPSIA

MARIHUANA



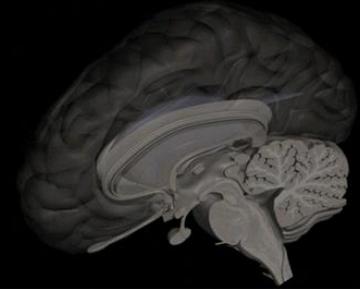
-SE DENOMINA CANNABINOIDES A LOS PRINCIPIOS QUÍMICOS QUE SE ENCUENTRAN EN LA PLANTA (400 COMPONENTES)

-LOS CANNABINOIDES ACTÚAN EN RECEPTORES CELULARES Y MODULAN LA LIBERACIÓN DE NEUROTRANSMISORES EN EL CEREBRO

-LOS PRINCIPALES CANNABINOIDES SON:

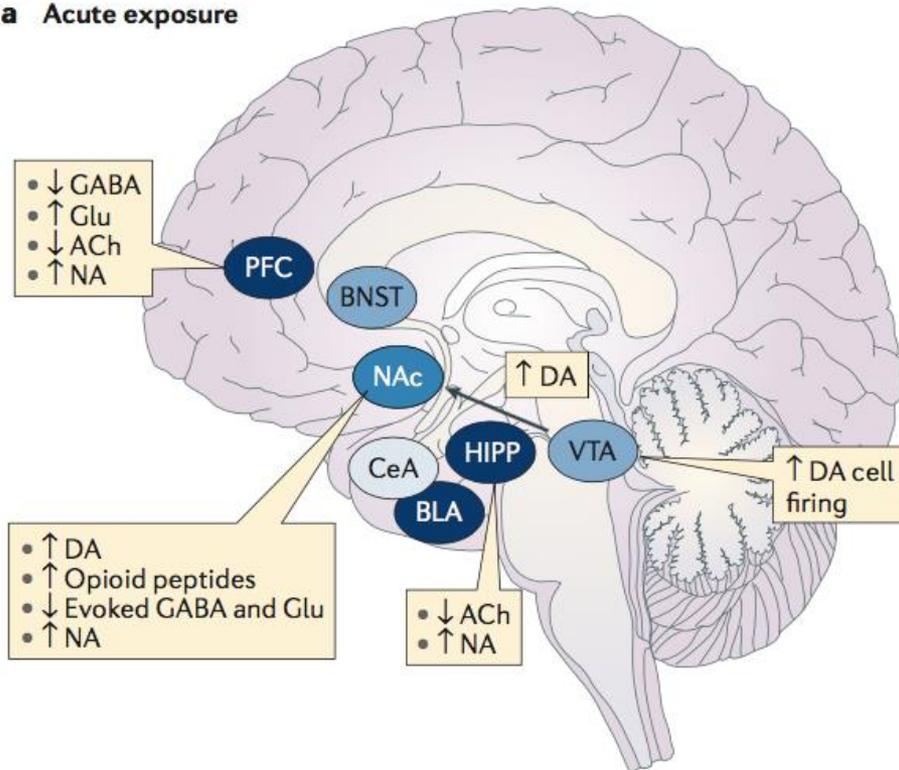
THC (TETRAHIDROCANNABINOL)
CANNABIDIOL
CANNABINOL

7. CANNABIS Y EPILEPSIA

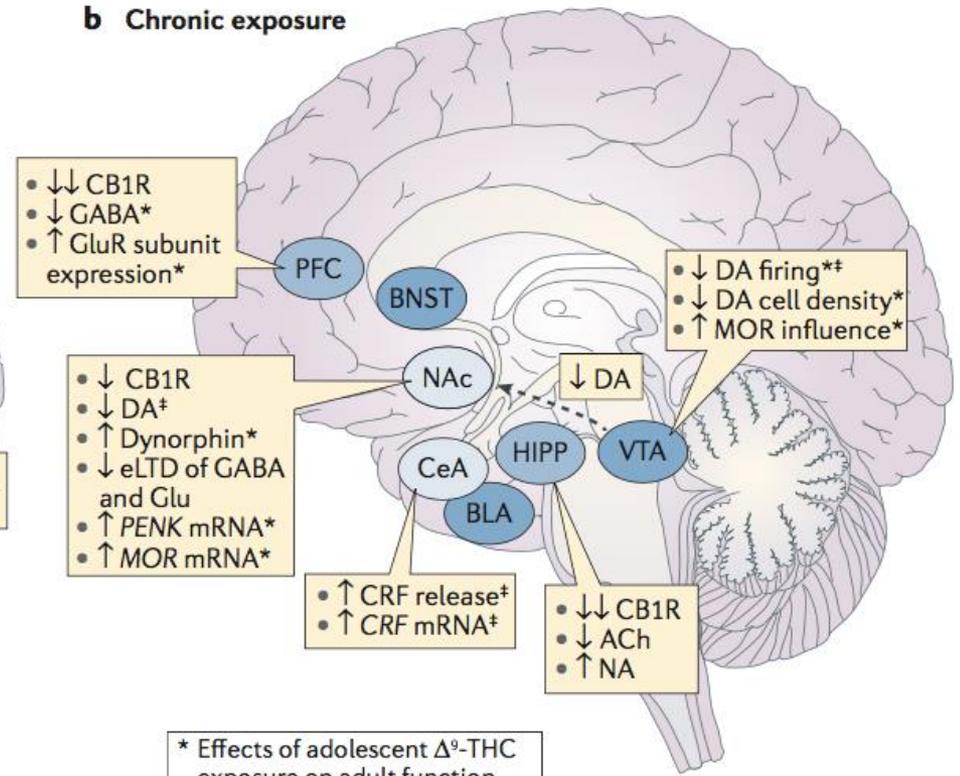


REVIEWS

a Acute exposure



b Chronic exposure



7. CANNABIS Y EPILEPSIA



MARIHUANA:

EFECTOS A LARGO PLAZO O EN USO INTENSIVO EN ADOLESCENTES

-ADICCIÓN

-DESARROLLO CEREBRAL ALTERADO

-PEOR DESEMPEÑO ESCOLAR (Y ABANDONO DE ESTUDIOS)

-MENOR COEFICIENTE INTELECTUAL

-MENOR NIVEL DE AUTOSATISFACCIÓN DE SU VIDA Y LOGROS

-MAYOR RIESGO DE ESQUIZOFRENIA



7. CANNABIS Y EPILEPSIA



8. AUTISMO Y EPILEPSIA



Hand flapping

8. AUTISMO Y EPILEPSIA



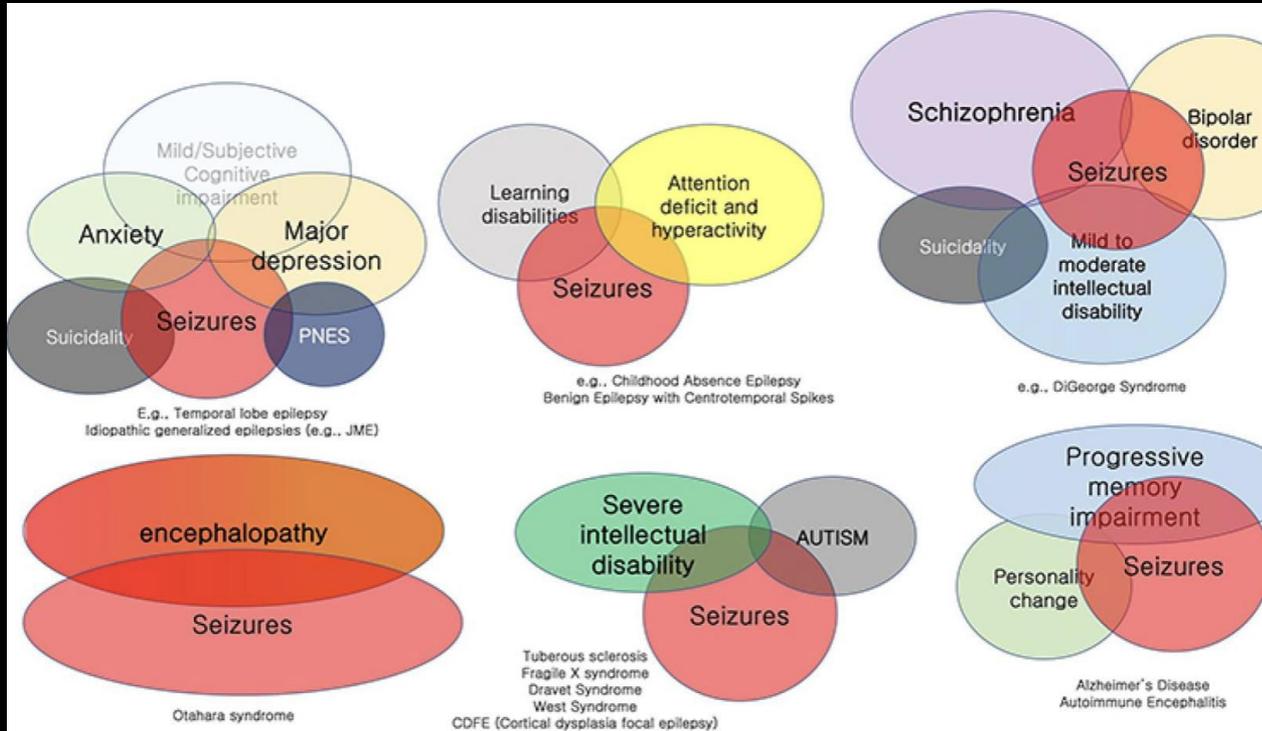
TRASTORNOS DEL ESPECTRO AUTISTA - DEFINICIÓN SEGÚN DSM V

-COMPROMISO SIGNIFICATIVO DE LA INTERACCIÓN Y COMUNICACIÓN SOCIAL

-PATRÓN DE CONDUCTAS E INTERESES RESTRICTIVOS Y REPETITIVOS

-HABITUALMENTE RELACIONADOS A ELEMENTOS NEUROSENSORIALES

8. AUTISMO Y EPILEPSIA

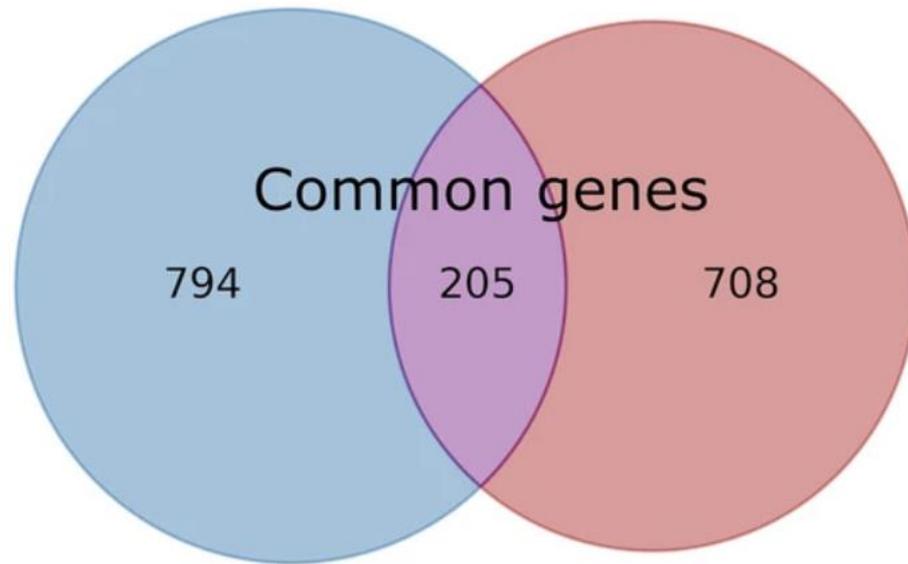


Clusters of Behavioral or Psychiatric Comorbidity in Epilepsy

8. AUTISMO Y EPILEPSIA



A



C

Epilepsy-associated Genes

Autism-associated Genes

Module size

CONCLUSIONES



-GRANDES AVANCES EN CONOCIMIENTO DE LA EPILEPSIA

-MAYOR ESPECTRO DE ALTERNATIVAS TERAPÉUTICAS

-PORCENTAJE DE PACIENTES MANTIENE CRISIS

-ALTO COSTO ECONÓMICO

-”MERCADO” DE EQUIPAMIENTO DE EVENTUAL UTILIDAD

-GRANDES GRUPOS DE INVESTIGACIÓN

-IMPORTANCIA DE GRUPOS DE TRABAJO PACIENTES-MÉDICOS-CIENTÍFICOS

21 DE OCTUBRE
PUERTO MONTE

CONTRALIBRERIA
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**JORNADA EDUCATIVA
LIGA LOCAL DE EPILEPSIA**

DR. PATRICIO GUERRA

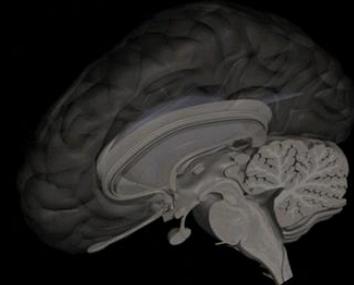
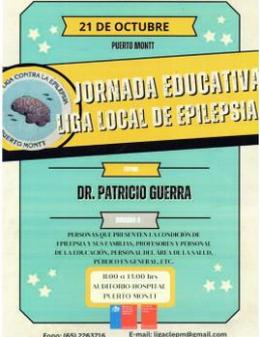
PERSONAS QUE PRESENTAN SÍNDROME DE
EPILEPSIA Y SU VARIAS, PROFESORES Y PERSONAL
DE EDUCACIÓN, PERSONAL DEL SERVICIO A LA SALUD,
PÚBLICO Y GENERAL, ETC.

8:00 a 13:00 hrs
MARTES 20 DE OCTUBRE DE
PUERTO MONTE

Foto: (56) 2283718 E-mail: ligadem@gmail.com



PREGUNTAS



JORNADA EDUCATIVA 2023 LIGA LOCAL CONTRA LA EPILEPSIA PUERTO MONTT

DR. PATRICIO GUERRA
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