XLIX Reunión anual
SOCIEDAD ESPAÑOLA DE NEURORRADIOLOGÍA
TOLEDO
21 - 23 octubre 2021
Palacio de Congresos
S.E.N.R Sociedad Española de Neurorradiología

Twitter y las posibilidades de formación continuada a través del social media

Vicente Martín García

H. U. Nuestra Sra. de Candelaria. S. C. de Tenerife

Siguiendo

Sociedad Canaria de Radiología

@canariaderadio1 Te sigue

Cuenta oficial de la Sociedad Canaria de Radiología (SCR), filial de la Sociedad Española de Radiología (SERAM).

Islas Canarias, España Se unió en junio de 2018

1181 Siguiendo **1203** Seguidores

Editar perfil

Vicente Martín

@vmargar

NRx.HUNSC #Neurorad

Se unió en junio de 2011

1840 Siguiendo **2703** Seguidores

Redes Sociales

¿Por qué?

¿Cuál?

¿Cómo?

¿A quién?

¿POR QUÉ?

- Visibilidad/exposición
- Fiabilidad
- Adicción
- Inmediatez
- Interactividad

VIRALIZACIÓN,
EL ARTE DE PERDER EL CONTROL

Impresiones: cantidad de veces que a un usuario se le publica un Tweet en la cronología o en los resultados de búsqueda.

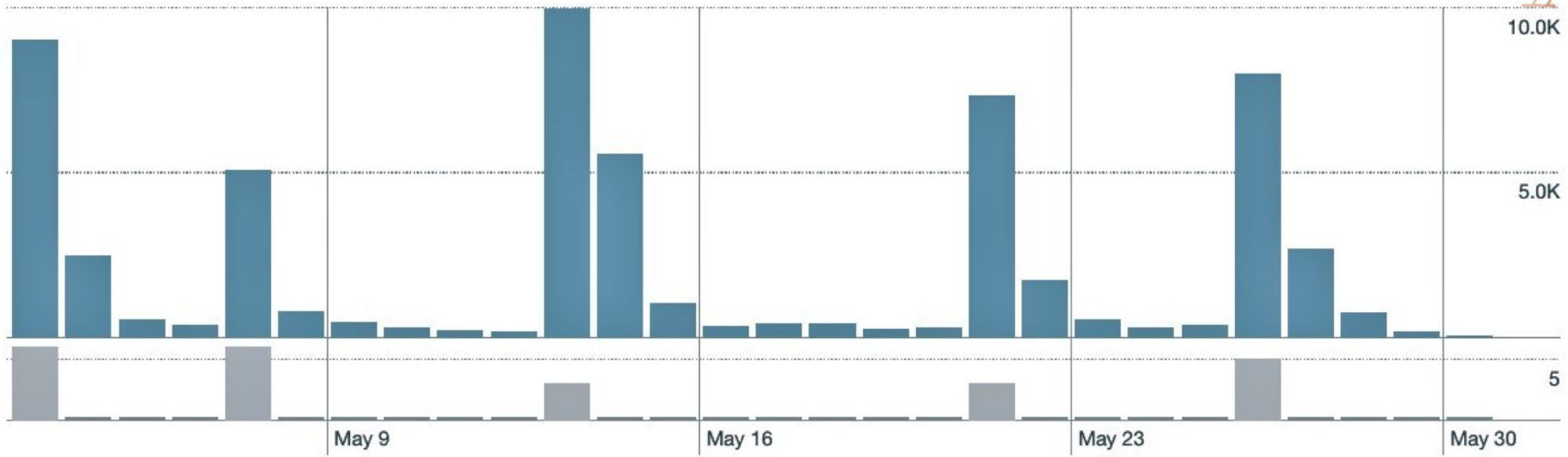
Vicente Martín @vmargar

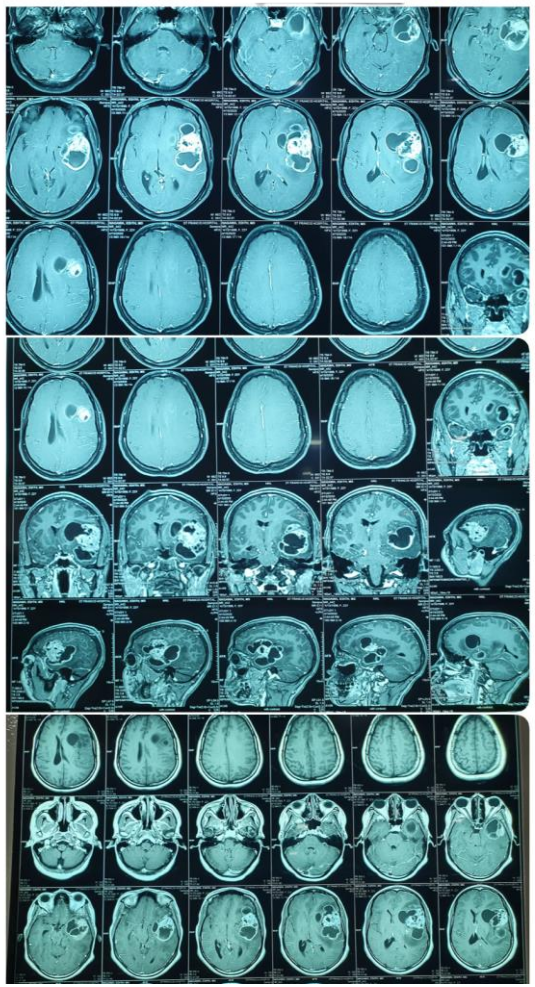
#FOAMrad #NeuroRad #radres #HUNSC
Uncal herniation
Medial displacement of the uncus and parahippocampal gyrus of the temporal lobe (1)
Mass effect/obliteration contralateral cisterns (2)
Widening of ipsilateral cisterns (3)
Duret hemorrhage (4)
Contralateral hydrocephalus (5)
pic.twitter.com/BAG4V5gOTc

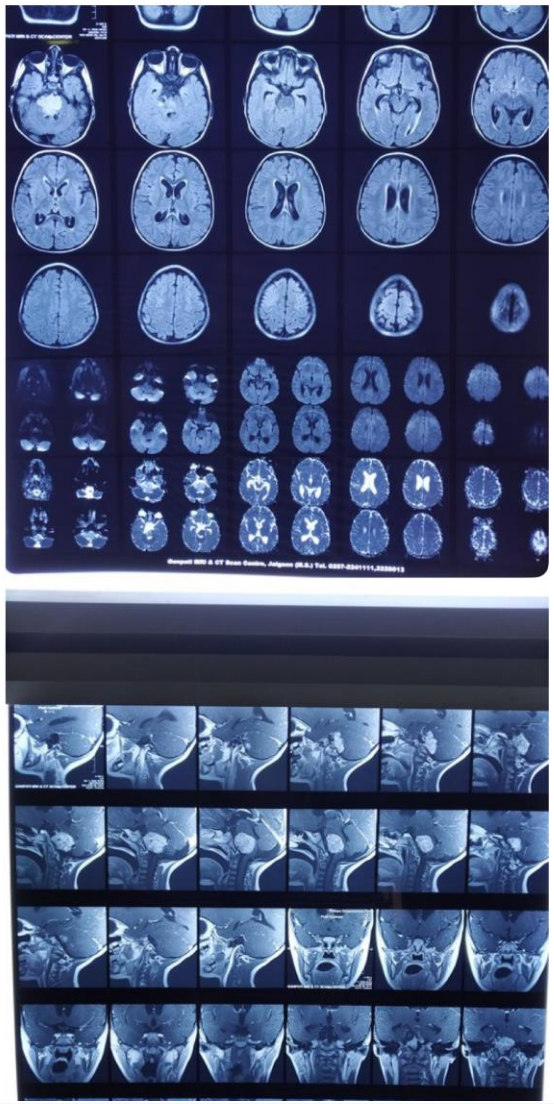
Impresiones	11.676
Interacciones totales	800
Interacciones con el contenido multimedia	402
Abrir el detalle	240
Me gusta	89
Clics en el perfil	33
Retweets	29
Clics en el enlace	4
Respuestas	2
Clics en la etiqueta	1

Interacciones: cantidad total de veces que un usuario interactuó con un Tweet. Clicks en cualquier lugar del Tweet como: Retweets,respuestas,Me gusta, enlaces, etc

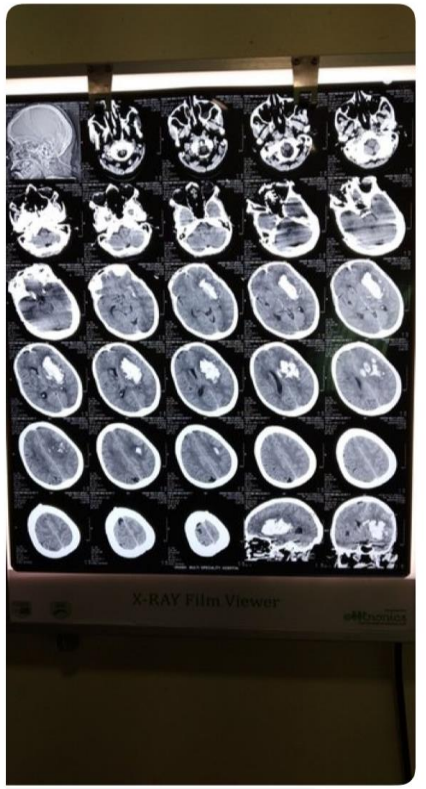
Sus Tweets consiguieron
62,3k impresiones en este período de 28 días







20 de enero de 2019



A patient sir in our casualty

10:58

¿CUÁL UTILIZAR?

Social Media Tools for Department and Practice Communication and Branding in the Digital Age

Marc D. Kohli, MD
Dania Daye, MD, PhD
Alexander J. Towbin, MD
Amy L. Kotsenas, MD
Marta E. Heilbrun, MD, MSCI

With nearly 70% of adults in the United States using at least one social media platform, a social media presence is increasingly important for departments and practices. Patients, prospective faculty and trainees, and referring physicians look to social media to find information about our organizations. The authors present

Insights Imaging (2015) 6:741–752
DOI 10.1007/s13244-015-0430-0

REVIEW

Social media for radiologists: an introduction

Erik R. Ranschaert[1] · P. M. A. van Ooijen[2] · Simon Lee[3] · Osman Ratib[4] · P. M. Parizel[5]

Use of Social Media in Radiology Education

Saad Ranginwala, MD[a], Alexander J. Towbin, MD[a]

1546-1440/17/$36.00 ■ https://doi.org/10.1016/j.jacr.2017.09.010

Platform Name	Number of Users	Supported Content in Posts	Interaction	Direct Messaging	Stories	Viewer Tracking	Hashtags (#) to Sort Content	Crowdsourced Data
Facebook https://www.facebook.com/	2.41 billion active monthly users as of May 2019	Text based posts with support for embedded images, videos and links	Add Friends Like Comment Share	✓	✓	✓	✓	
https://twitter.com/	320 million active monthly users	Text based post with support for embedded images, videos and links	Follow Retweet Like Reply	✓		✓	✓	
https://www.instagram.com/	1+ billion active monthly users as of June 2018	Image based platform with support for videos and some text	Follow Like Comment Share	✓	✓	✓	✓	
https://www.redditinc.com/	430+ million active monthly users as of January 2020	Digital bulletin board with primarily text-based posts with support for embed links, photos and videos where more popular items appear first	Follow Comment Share Upvote Downvote	✓			✓	
https://www.linkedin.com/	660+ million members as of January 2020	Professional online profile for networking purposes, primarily text-based posts with support of embedded links, photos and videos	Connect Like	✓		✓		
https://www.youtube.com/	2+ billion users as of January 2020	Primarily video-based posts with support for embedded links and text	Share View Subscribe Like Dislike Comment			✓		
https://www.doximity.com/	1 million members as of February 2018	Primarily text-based platform for displaying a profile for medical	Send HIPPA-compliant messages and faxes	✓				✓
Snapchat https://www.snapchat.com/	200 million (+) worldwide users	Primarily image and video-based posts with support of embedded text	View Snap	✓	✓	✓		
https://www.researchgate.net/	15+ million worldwide members as of April 2018	Primarily text-based posts that have either been published, been rejected, in need of revision or additional research support	Ask questions Share Research Seek Opportunities Find Collaborators	✓		✓		✓
https://www.whatsapp.com/	1.6 billion active users as of July 2019	Text based mobile messaging with support of embedded	Free mobile messaging app interaction via direct messaging other users	✓				

Radiology Research Alliance

Social Media in Radiology: Overview and Usefulness of Online Professional #SoMe Profiles

Bradley Spieler, MD, David H Ballard, MD, Parisa Mazaheri, MD, Nicole Legro, BS, Tara Catanzano, MD, Courtney Dey, MD, Elizabeth Prejean, BS, Jake Fontentot, BSN, Maria Daniela Martin, MD, Raman Danrad, MD, Helen Hye Ryong Kim, MD, Drew Caplin, MD, Lori Mankowski Gettle, MD, Omer Awan, MD, MPH

https://doi.org/10.1016/j.acra.2020.03.014

Social Media Tools for Department and Practice Communication and Branding in the Digital Age

Twitter

Twitter is among the most commonly used social media platforms in the professional medical community. It is based on text interactions (tweets) delivering microbursts of information, in which users can also embed photographs, links, and videos. All posts are currently limited to 280 characters and can be viewed by all users following the poster or by any user following any hashtags included in the post. All users can also comment on any post.

RadioGraphics 2018; 38:1773–1785

https://doi.org/10.1148/rg.2018180090

CUENTAS CON MÁS SEGUIDORES

	Variación	Nombre de la cuenta	Propietario	Número de seguidores (en millones)
1.	=	@BarackObama	Barack Obama	129,1
2.	=	@justinbieber	Justin Bieber	113,8
3.	=	@katyperry	Katy Perry	109,4
4.	=	@rihanna	Rihanna	101,6
5.	=	@Cristiano	Cristiano Ronaldo	90,9
6.	=	@taylorswift13	Taylor Swift	88,2
7.	=	@ladygaga	Lady Gaga	83,8
8.	+1	@ArianaGrande	Ariana Grande	81,8
9.	−1	@TheEllenShow	Ellen DeGeneres	79,2
10.	=	@YouTube	YouTube	72,9
11.	=	@KimKardashian	Kim Kardashian	68,9
12.	+1	@narendramodi	Narendra Modi	65,5
13.	+1	@selenagomez	Selena Gomez	64,4

CUENTAS CON MÁS SEGUIDAS EN ESPAÑA

#	Twittero	Seguido por	Sigue a	Tweets	Twitea desde	Ultimo Tweet	Categoria
1	@Cristiano Cristiano Ronaldo	78,536,721	51	3,412	14/06/2010	01/07/2019	deportes...
2	@neymarjr Neymar Jr	47,734,956	733	41,684	22/06/2010	30/06/2020	deportes...
3	@realmadrid Real Madrid C.F.?	32,927,635	58	67,491	22/05/2008	14/09/2019	futbol...
4	@FCBarcelona FC Barcelona	30,012,030	80	102,754	15/12/2009	30/06/2019	deportes...
5	@andresiniesta8 Andrés Iniesta	24,415,859	104	2,140	18/11/2009	14/09/2019	futbol...
6	@3gerardpique Gerard Piqué	19,629,600	680	2,902	08/12/2010	01/02/2020	futbol
7	@AlejandroSanz Alejandro Sanz	19,570,871	2,155	29,516	28/05/2009	30/07/2019	musica...
8	@jamesdrodriguez James Rodríguez	18,299,207	296	2,732	11/04/2011	20/07/2019	deportes...
9	@GarethBale11 Gareth Bale	18,028,244	117	1,506	06/08/2012	13/06/2019	deportes...
10	@SergioRamos Sergio Ramos	16,848,762	722	3,996	02/06/2010	08/02/2020	futbol...

TOP 10 MÉDICOS EN TWITTER 2020

Cuenta	Seguidores	Seguidos	Ratio
1. @spiriman	125.607	137	916,83
2. @luciapediatra	66.722	1.290	51,72
3. @Nopanaden	63.776	663	96,19
4. @MDiazFuentes	47.537	3.241	14,66
5. @juliomayol	39.801	12.141	3,27
6. @joancmarch	34.315	33.174	1,03
7. @SergioVanoG	33.067	18.368	1,80
8. @mlalanda	32.983	2.791	11,81
9. @DoctorCasado	25.954	25.663	1,01
10. @frmat	24.372	26.590	0,91

¿CÓMO?: ACTITUD

- Pasiva
- Pasiva/agresiva:
  - Retuitear.
  - Comentar.
- Activa:
  - Hilos (“tuitoriales”)

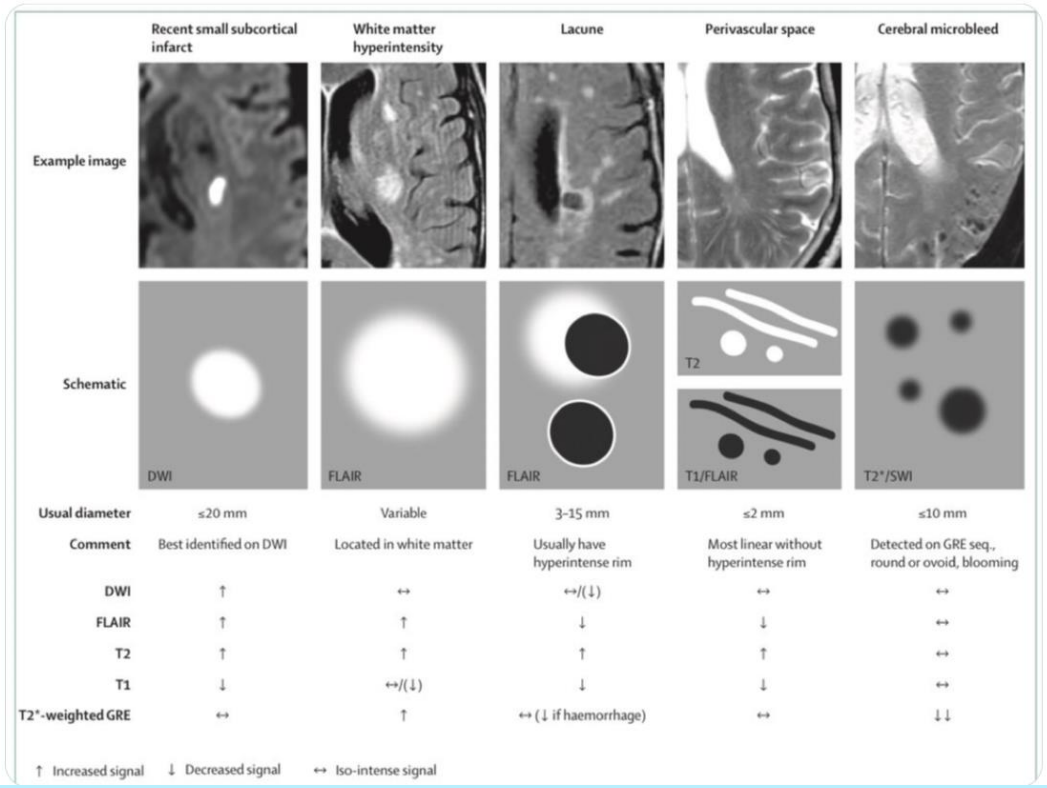
Vicente Martín @vmargar · 6/7/21

#FOAMrad #FOAMed #neurorad #radres #neuroradiolgy

MRI findings for lesions related to Small Vessel Disease

Lancet Neurol 2013; 12: 822–38

DOI: 10.1016/S1474-4422(13)70124-8



Vicente Martín @vmargar · 16/8/21

#FOAMrad #NeuroRad #radres #HUNSC

Uncal herniation

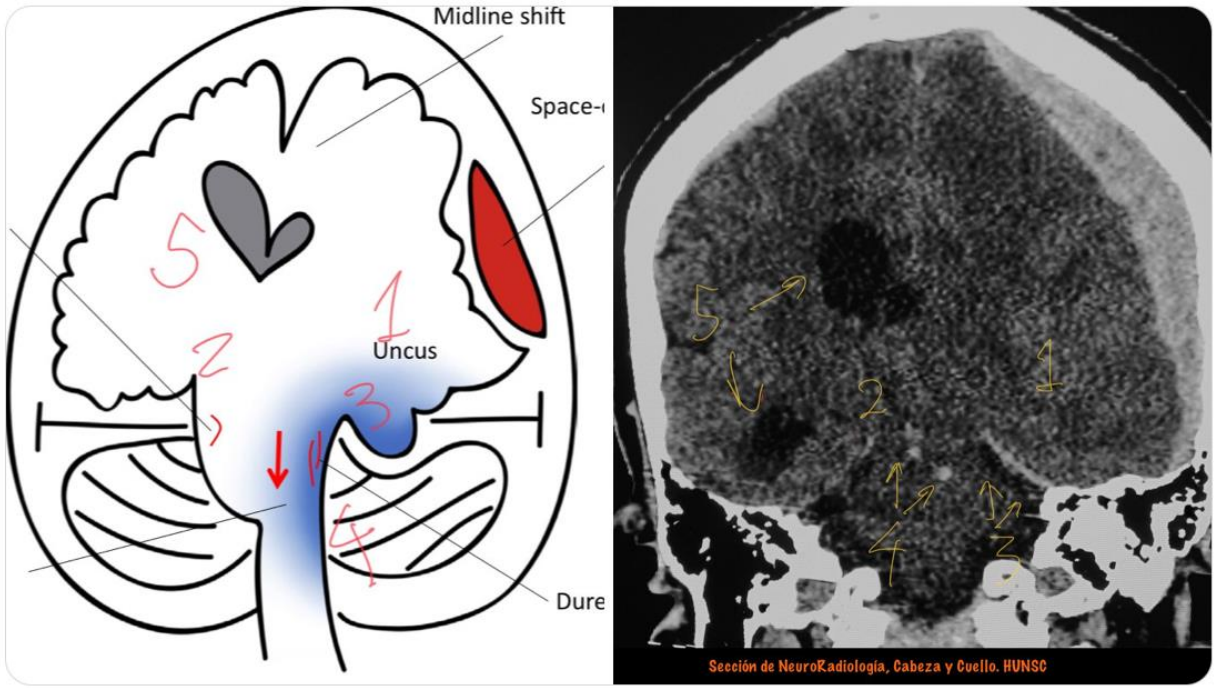
Medial displacement of the uncus and parahippocampal gyrus of the temporal lobe (1)

Mass effect/obliteration contralateral cisterns (2)

Widening of ipsilateral cisterns (3)

Duret hemorrhage (4)

Contralateral hydrocephalus (5)

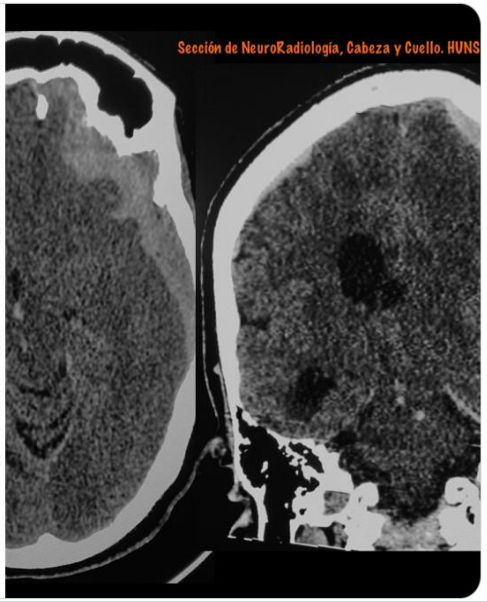


Vicente Martín @vmargar · 16/8/21

Uncal herniation produces a duret hemorrhage that appears as flame or linear-shaped hyperintensities in the brain stem.
This is due to tearing of small vessels.

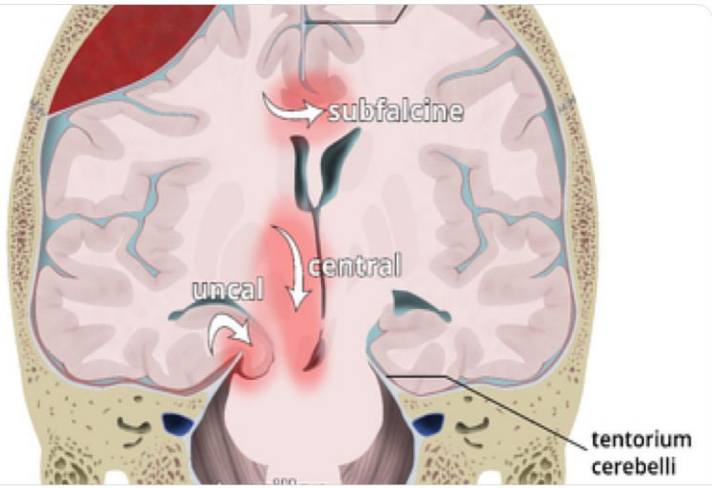
dx.doi.org/10.1016/B978-0...

anisms	Clinical
mpression on asympathetic followed somatic component of ulomotor nerve arction of ipsilateral visual tex eral displacement of in stem to compress the ntralateral corticospinal ct stortion of the ascending usal system ret hemorrhage	1. Dilate "dowr the ips 2. Contra hemia 3. Ipsilat hemip 4. Uncon 5. Decort respira death



Type of herniation	Mechanisms	Clinical presentations
Uncal herniation	1. Compression on parasympathetic followed by somatic component of oculomotor nerve 2. Infarction of ipsilateral visual cortex 3. Lateral displacement of brain stem to compress the contralateral corticospinal tract 4. Distortion of the ascending arousal system 5. Duret hemorrhage	1. Dilated pupils, ptosis, and "down and out position" of the ipsilateral eye 2. Contralateral homonymous hemianopia 3. Ipsilateral hemiparesis or hemiplegia 4. Unconsciousness 5. Decorticate posture, respiratory depression, and death

Vicente Martín
@vmargar

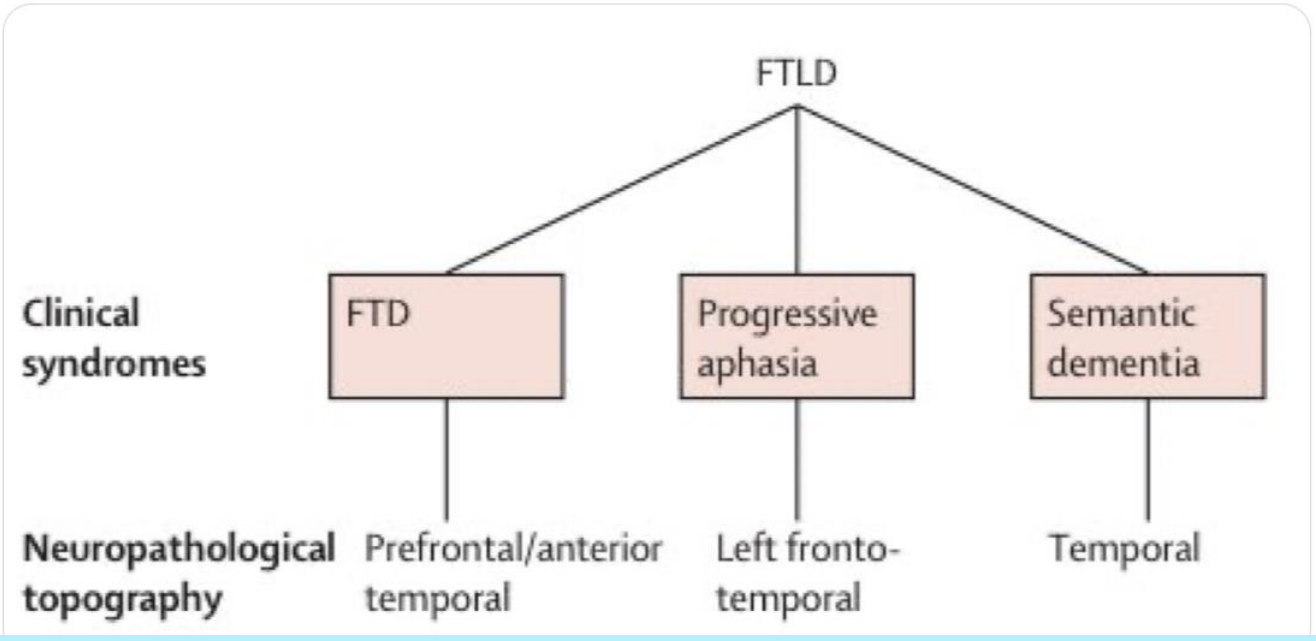


radiopaedia.org
Uncal herniation | Radiology Reference Article | Radiopaedia.org

Vicente Martín @vmargar · 18/11/18

Neuroimaging of FLTD

Frontotemporal dementia or frontotemporal lobar degeneration (FTLD), is a clinical syndrome characterised by profound changes in personality and social conduct and associated with circumscribed degeneration **of** the prefrontal and anterior temporal cortex.



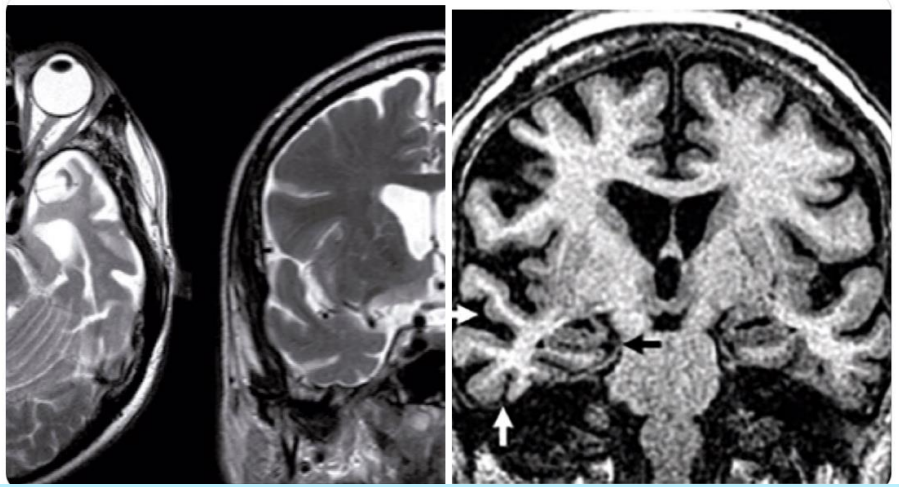
Vicente Martín @vmargar · 18/11/18

En respuesta a @vmargar

Behavioral variant
Asymmetric anteroposterior atrophy with first appearance in the orbitofrontal cortex and interhemispheric involvement of the amygdala.
Bilateral frontotemporal atrophy, predominantly right.

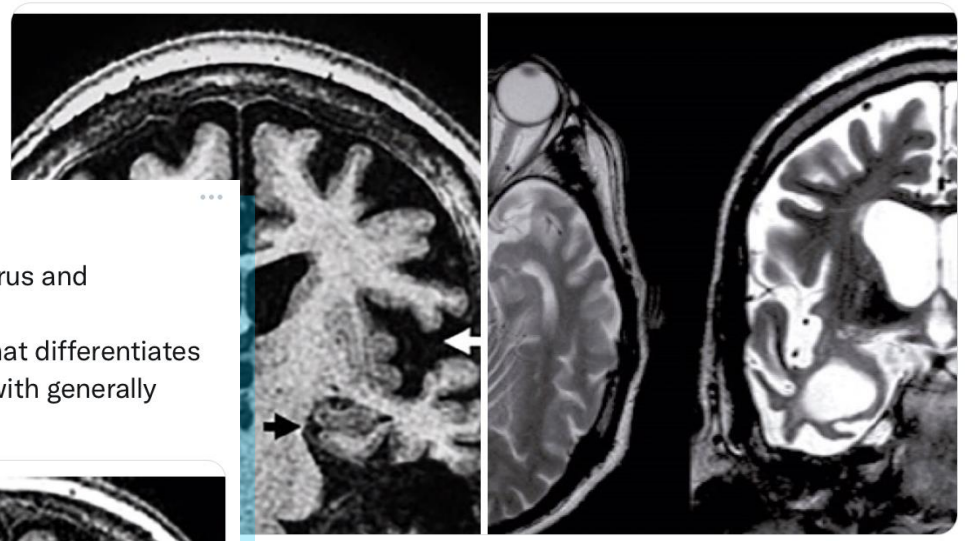
Vicente Martín @vmargar · 18/11/18

Semantic Variety
Asymmetric atrophy of the temporal pole, fusiform gyrus and amigdalohypocampal region
Presents asymmetric affectation of the hippocampi that differentiates them from non-fluent aphasia and Alzheimer's type, with generally symmetric involvement



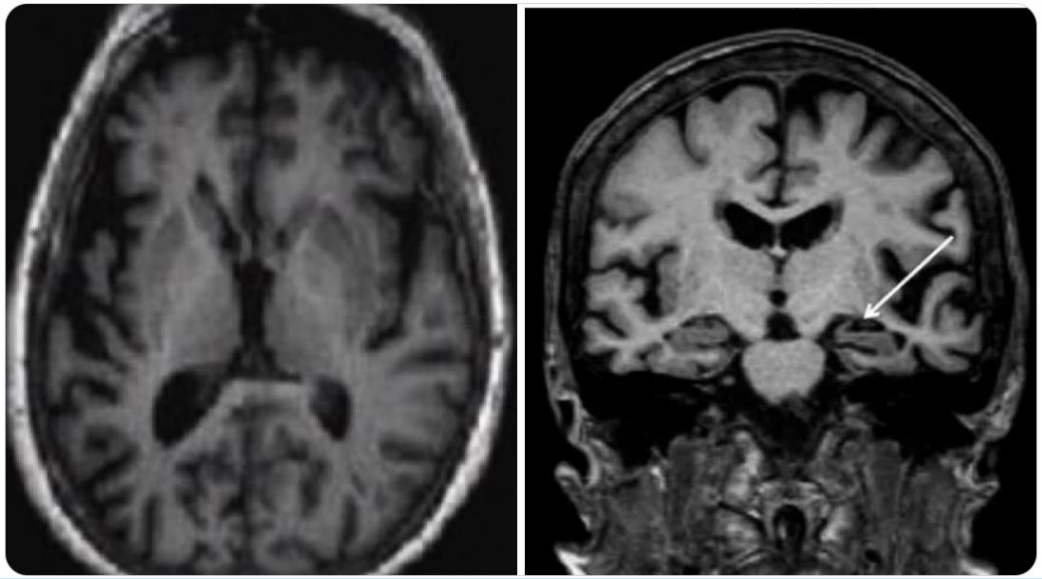
Vicente Martín @vmargar · 18/11/18

Progressive aphasia not fluent
Frontoinsular, temporal superior and inferior parietal atrophy
Asymmetric with relative preservation of amygdala and hippocampi



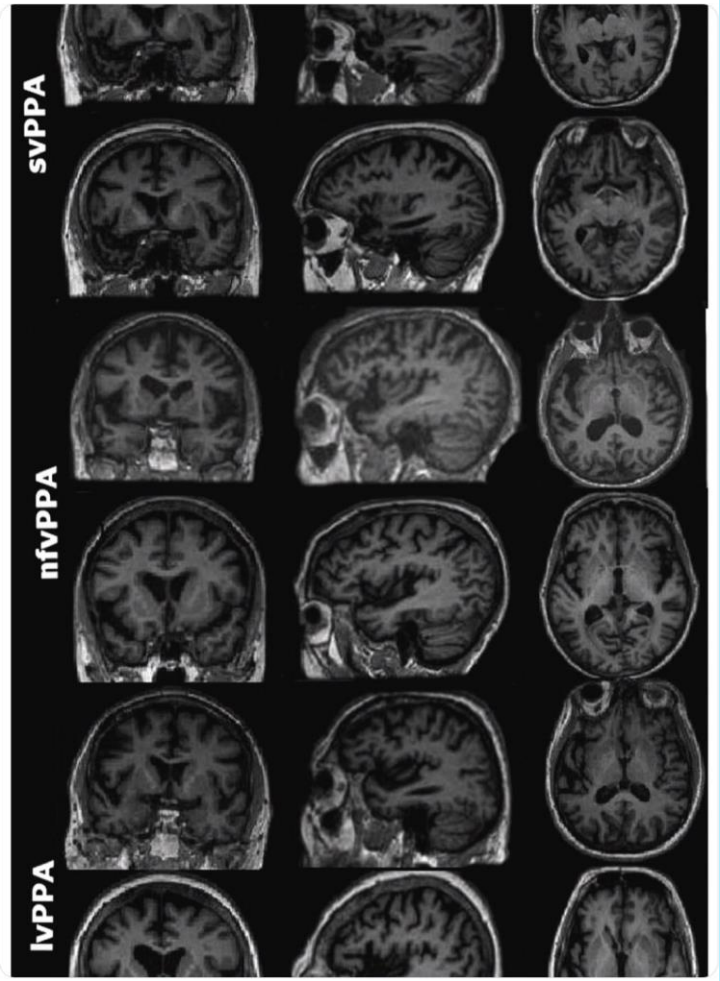
Vicente Martín @vmargar · 18/11/18

Logopenic Aphasia.
it is more related to Alzheimer's disease than to FLTD.
In the early stages its most characteristic feature is the asymmetric temporal and posterior parietal involvement.



Vicente Martín @vmargar · 18/11/18

doi:10.1016/j.nrl.2012.04.003
doi:10.1016/j.rx.2009.09.005
Lancet Neurol 2005; 4: 771–80
Rev colomb Radiol. 2013; 24(1): 3632-39
dx.doi.org/10.3174/ajnr.A...
dx.doi.org/10.3174/ajnr.A...
Dement Neuropsychol 2014 September;8(3):302-307



¿A QUIÉN SEGUIR?
PERFILES

- Institucionales:
  - Nacionales
  - Internacionales
- Revistas
- Personales

INSTITUCIONES NACIONALES

@SERAM_RX (01/2010): 4.852 seguidores.

@cbSERAM (03/2013): 1.867.

@residentesSERAM (04/2018): 3.524.

Secciones (11).

Filiales (13).

SERAM

RADIOLOGÍA AL DÍA

Club bibliog SERAM

Residentes SERAM

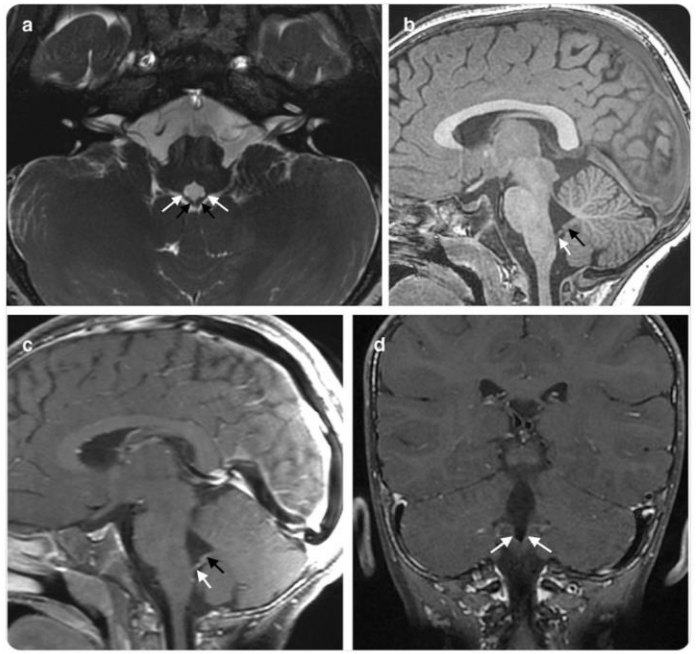
Residentes SERAM @residentesSERAM · 15/9/21

📖 El resumen del @cbSERAM de hoy nos lo trae @JcabMRI del Hospital Nuestra Señora De La Candelaria 🏥

Potenciales nuevos biomarcadores para el diagnóstico diferencial entre saco de Blake y la malformación de Dandy Walker mediante RM 🤔

➡️ cbseram.com/2021/08/16/nue...

@SENR_org



Club bibliog SERAM @cbSERAM · 20/8/21

Kelly Johanna Parra nos trae esta revisión de @RadioGraphics sobre las lesiones de la calota.

Cuando ponemos la ventana de hueso en el TC craneal🧠... ¿Sabemos que lesiones estamos viendo?

➡️cbseram.com/2021/07/15/esp...

@SERAM_RX

SERAM
@SERAM_RX

¡La #LigaSERAM arrancará en octubre! 👏

📆 A partir del 15 de septiembre podrás inscribirte en est competición de casos clínicos donde podrán participar distintos equipos.

Este proyecto de la #SERAM parte de la iniciativa de @residentesSERAM.

ℹ️ bit.ly/3gLsMmd

Secciones (7)

@SENR_org (09/2011): 1.749.

SENR_org

@SERAUWeb (09/2015): 1.523.

SERAU

@sediabdomen (04/2016): 2.452.

SEDIA

@SERVEISoc (06/20107): 1.722.

SERVEI - Radiología Vascular Intervencionista

@MskSerme (02/2019): 2.149.

SERME

@SEDIM_RX (11/2018): 392.

SEDIM

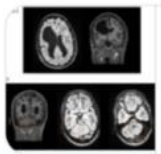
@SEICAT_RAD (05/2019): 1.283.

SEICAT


Siguiendo
SENR_org
@SENR_org
Te sigue
SENR, Sociedad Española de Neurorradiología, fundada en 1972, es una asociación de carácter médico-científico de la Neurorradiología diagnóstica y/o terapéutica
España
senr.org
Se unió en febrero de 2011
341 Siguiendo
1731 Seguidores

SENR_org @SENR_org · 4/6/21

Has visto alguna vez esta entidad? Caso del mes SENR de Junio (recuerda que pronto sortearemos 2 bolsas de viaje para Reunión Anual de Toledo, enviad vuestros casos!!!!) > senr.org/index.php/caso... @SERAM_RX @residentesSERAM @seneurologia



Caso del mes junio 2021 - SENR: Bienvenid@ al portal de la SENR (Sociedad Española de Neurorradio...

senr.org

Figura 1

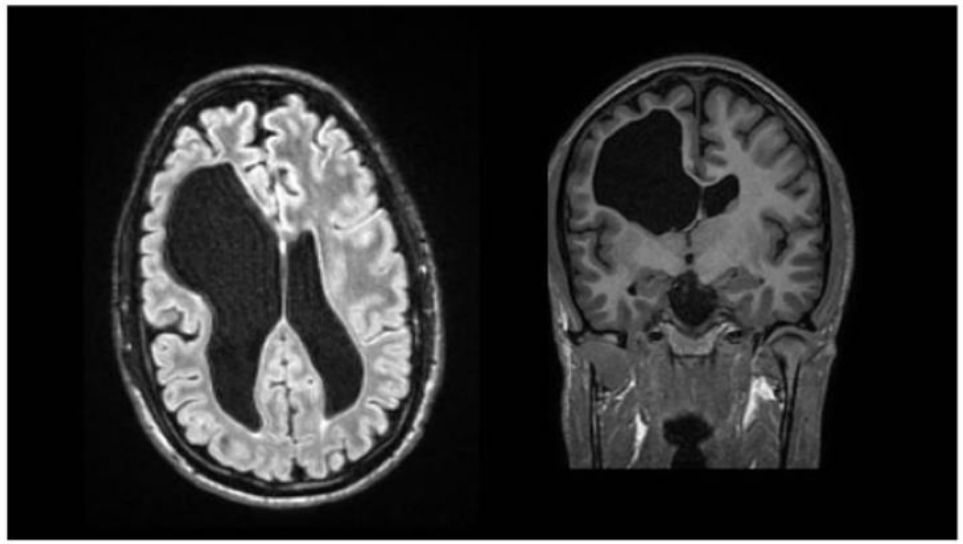
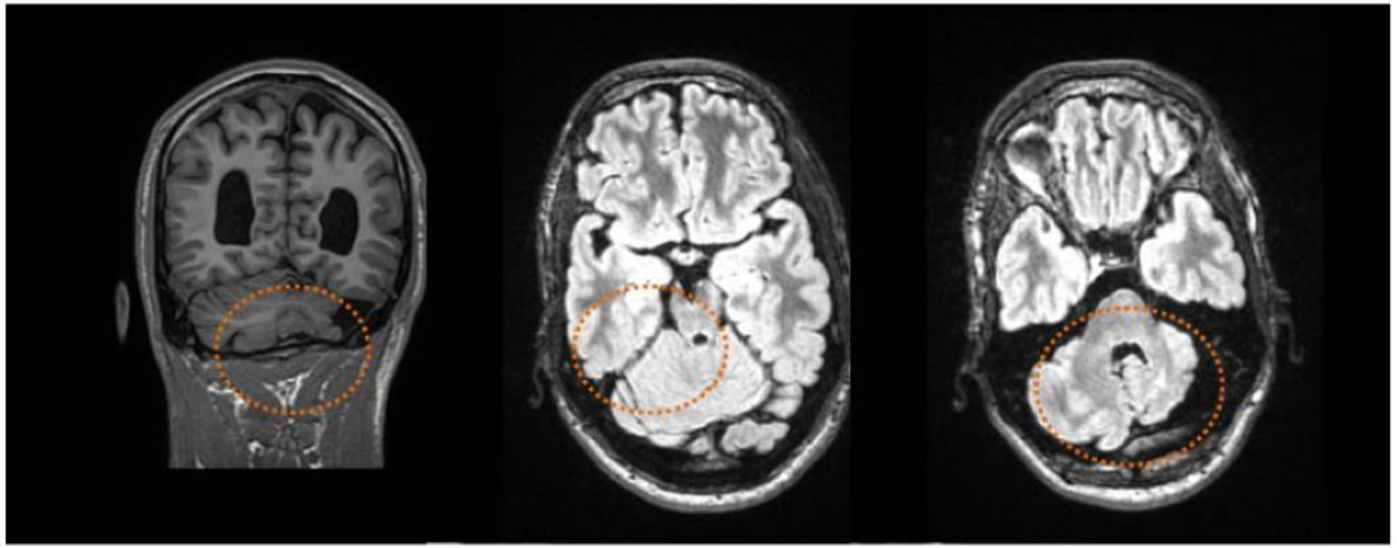


Figura 2



Filiales (5)

@SORMU_RX (01/2018): 992.

Sociedad Murciana de Radiología

@canariaderadio1 (06/2018): 1.211.

Sociedad Canaria de Radiología

@Radiolegs_CAT (03/2019): 133.

radiolegscatalunya

@SRadiologiaCV (02/2020): 854.

Sociedad Radiología CV

@SAR_Rad (01/2021): 391.

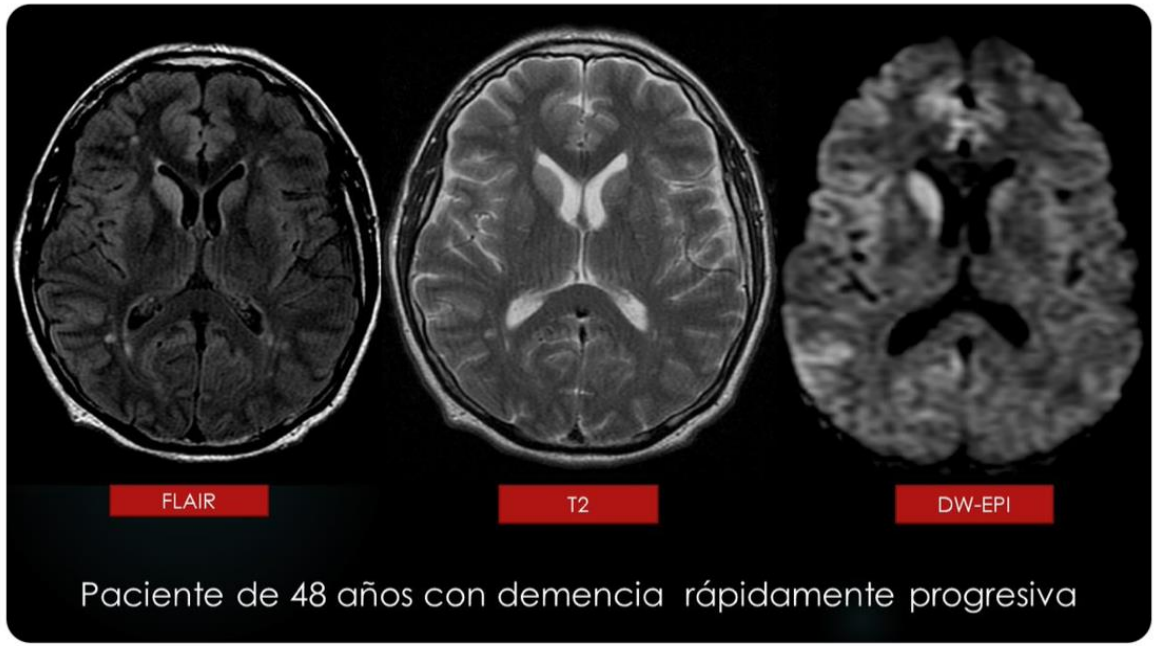
Sociedad Aragonesa de Radiología


SOCIEDAD ARAGONESA
DE RADIOLOGÍA
SAR
Seguir
Sociedad Aragonesa de Radiología
@SAR_Rad
Sociedad Aragonesa de Radiología (SAR), filial de la Sociedad Española de Radiología Médica (SERAM)
Aragón
onlinesar.es
Se unió en enero de 2021
229 Siguiendo
385 Seguidores

Sociedad Aragonesa de Radiología @SAR_Rad · 18/4/21

Este ha sido nuestro octavo caso

@SERAM_RX @residentesSERAM @ResidentesRayos @SENR_org @TheASNR @SPRneuro @SRadiologiaCV @SORMU_RX @canariaderadio1 @serammeA6SALUD @Radiolegs_CAT



Sociedad Aragonesa de Radiología @SAR_Rad · 18/4/21

¿Diagnóstico?
A-Síndrome de Leigh
B-Síndrome de desmielinización osmótica con alteración de señal en caudado y putamen
C-Enfermedad de Creutzfeldt-Jacob con alteración de señal asimétrica en núcleo caudado y cortical frontotempora
D-Linfoma, con infiltración en ganglios basales

A	12 %
B	7 %
C	**80 %**
D	0 %

41 votos · Resultados finales

1 2

Sociedad Aragonesa de Radiología @SAR_Rad · 19/4/21

¡¡Muy bien!! 👏👏👏 La respuesta correcta es la C. Más información sobre este caso en 👇👇👇 onlinesar.es/resources/caso...
Gracias por participar.

INSTITUCIONES INTERNACIONALES

@RSNA (08/2008): 54.840.

@RadiologyACR (03/2008): 48.743.

@TheASNR (04/2010): 10.581.

@ASHNRSociety (09/2011): 6.170.

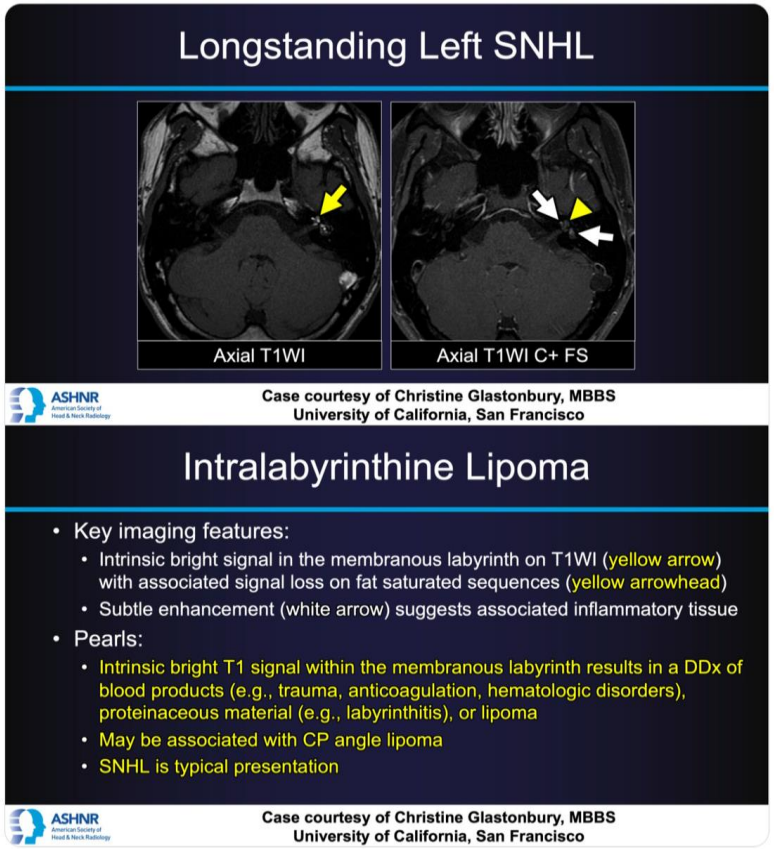
@ESNRad (05/2016): 3.186.

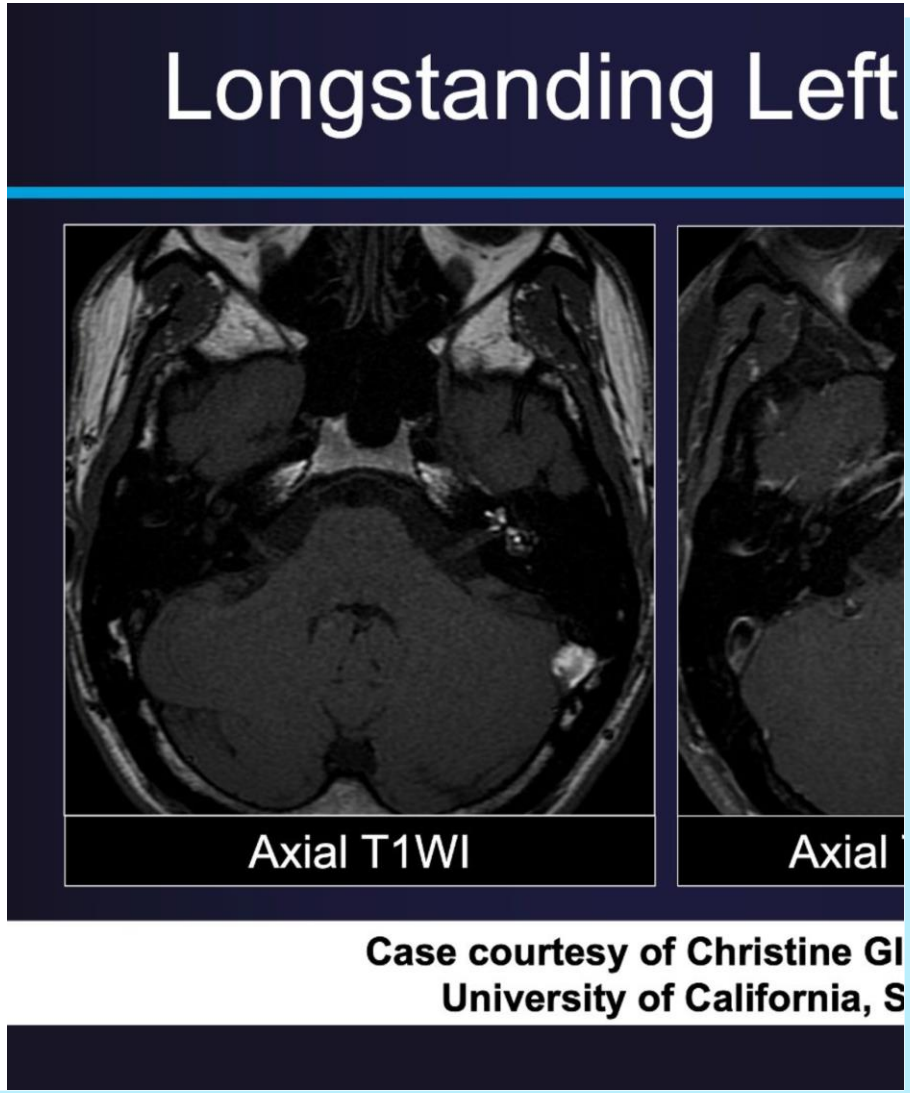

Seguir
ASHNR
@ASHNRSociety
Official Twitter feed of the American Society of Head and Neck Radiology (ASHNR)
Traducir la biografía
ashnr.org
Se unió en septiembre de 2011
160 Siguiendo
5994 Seguidores

ASHNR @ASHNRSociety · 1d

#ASHNRCOTW #165 ANSWER: Intralabyrinthine Lipoma! Thx Dr. @CMGlastonbury 4 case! #ASHNR21

@DShatzkes @CDP_Rad @rhwiggins @callyrobs @nakoontz @cmtomblinson @CincyPedsNeuro @ESHNRSociety @TheASNR @phudge54 @AnnJayMD1 @amyfjuliano @RadRupa @KRileyMD @PhilipRChapman1 @gmoonis





Siguiendo

Radiopaedia.org
@Radiopaedia

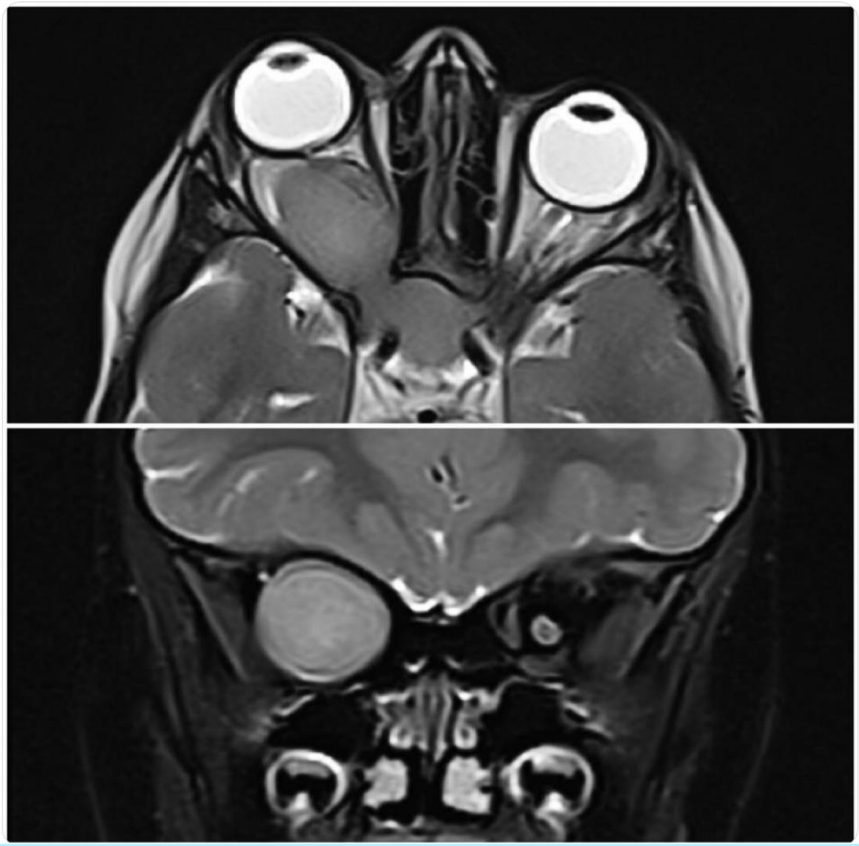
Free online collaborative radiology resource. Articles, cases, courses and more.
#foamed #foamrad

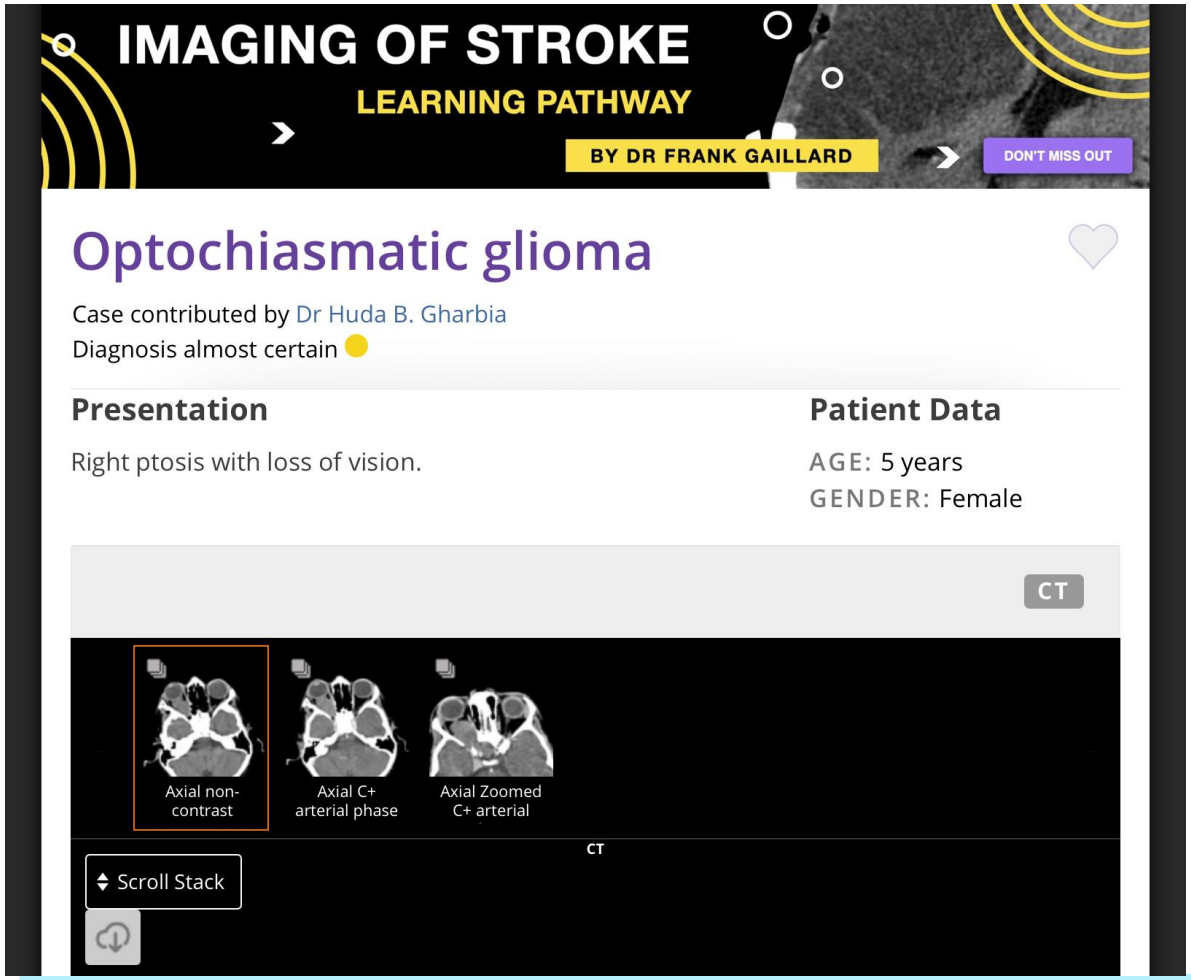
radiopaedia.org Se unió en abril de 2009

464 Siguiendo **68.568** Seguidores

Radiopaedia.org @Radiopaedia · 27/8/21

Q: 5yo female with right eye visual loss. What's the diagnosis?
ANSWER: bit.ly/2U9gVSk
#FOAMrad #FOAMed





There is hypodense soft tissue mass centred on the right optic nerve in retrobulbar space, shows faint enhancement post-contrast, extend through the right optic canal to suprasellar cistern.

REVISTAS

@Radiology_rsna (04/2009): 41.942.

@RadioGraphics (11/2010): 25.297.

@AJR_Radiology (04/2020): 3.796.

@TheASNR (04/2010): 10.581.

@ASNRographics (05/2005): 2.591.

@NRADjournal (05/2016): 1.417.

@RevistaRADIOLO2 (02/2018): 3.136.

AJNR

Siguiendo

AJNR

@TheAJNR

The American Journal of Neuroradiology is a peer-reviewed journal focusing on diagnostic and interventional neuroradiology. Published by @TheASNR

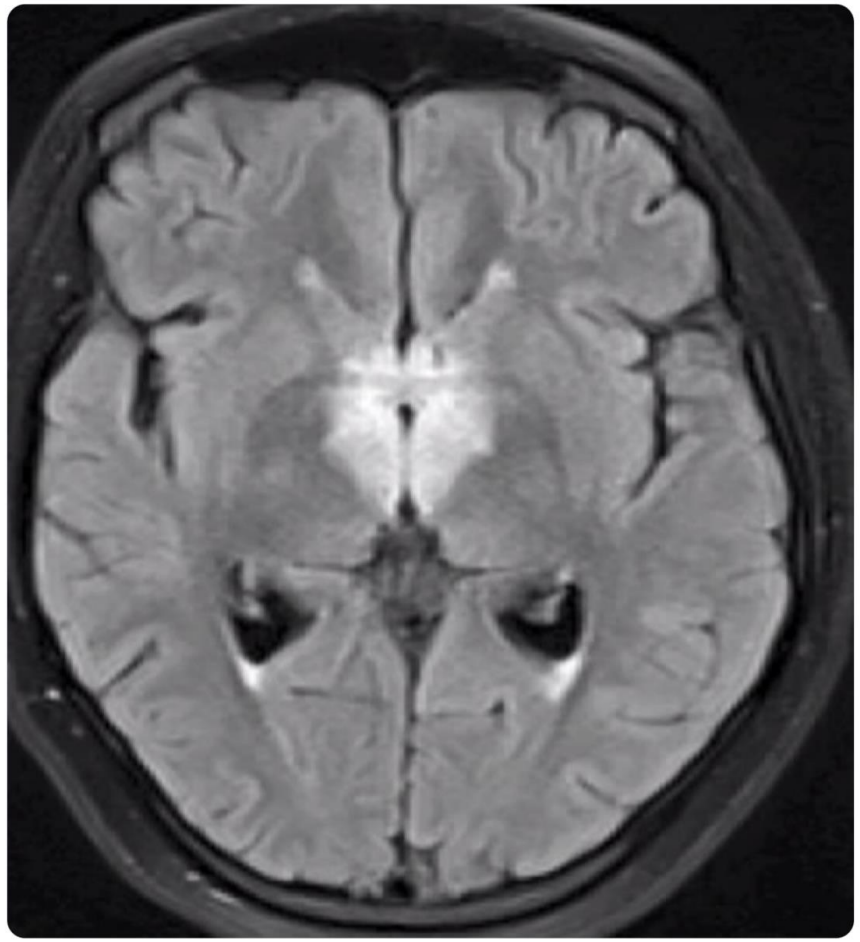
Traducir la biografía

Oak Brook, IL ajnr.org Se unió en enero de 2013

465 Siguiendo **10.807** Seguidores

AJNR @TheAJNR · 23/7/21

#AJNRcow >> July 22, 2021 >> A 22-year-old woman with headache, decreased responsiveness, increased sleepiness for 10 days, and previous history of longitudinally extensive transverse myelitis. View the case at ow.ly/NQ0e50FCecU.



AJNR @TheAJNR · 23/7/21

"MRI-Visible Perivascular Spaces in the Centrum Semiovale Are Associated with Brain Amyloid Deposition in Patients with Alzheimer Disease–Related Cognitive Impairment" | #NeuroRad | bit.ly/3wWBJ1b

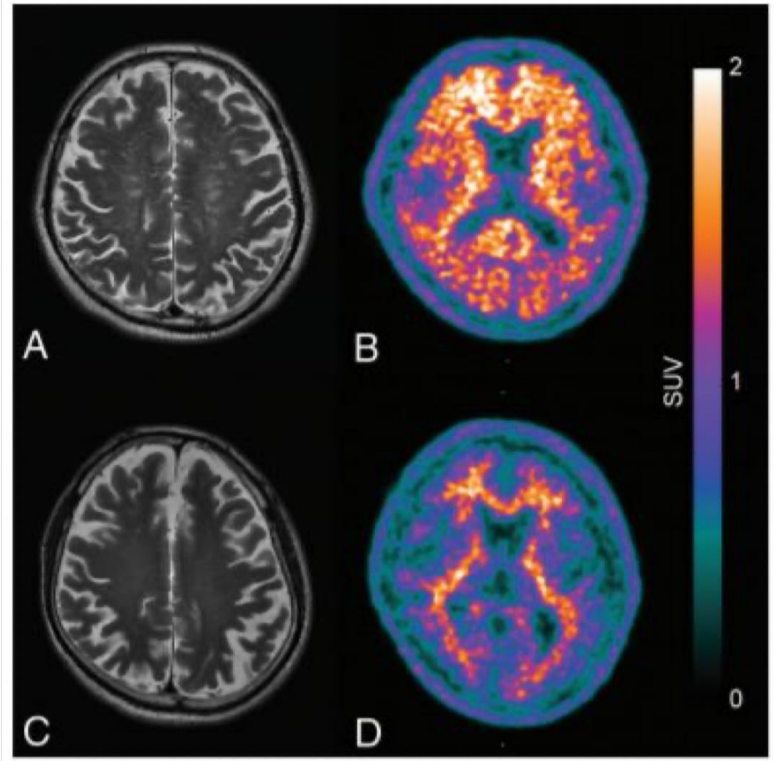
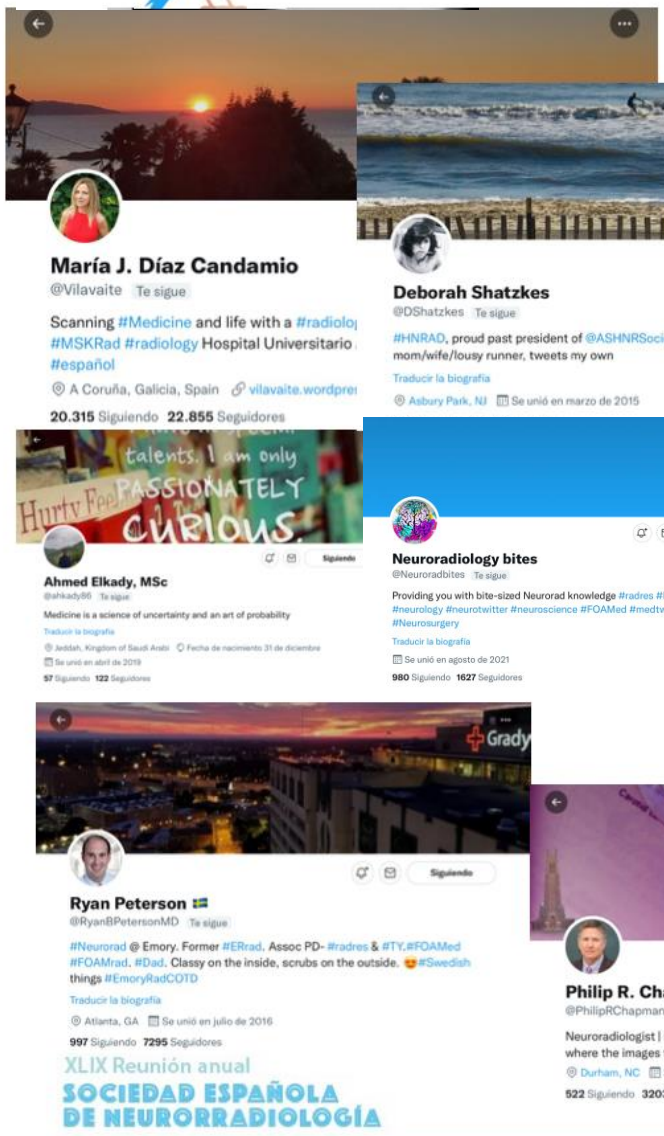
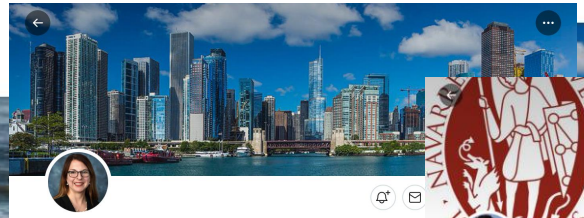
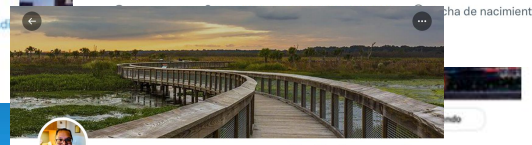


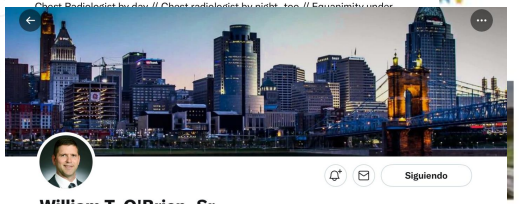
FIG 3. Examples of perivascular space patterns with the corresponding [^{18}F] FBB PET image. The axial T2-weighted MR imaging shows a high degree of MR imaging–visible PVS-CS (*A*), and the corresponding [^{18}F] FBB PET (*B*) shows pronounced β-amyloid deposition. Axial T2-weighted MR imaging shows a low degree of MR imaging–visible PVS-CS (*C*) and the [^{18}F] FBB PET scan (*D*) shows low β-amyloid deposition.

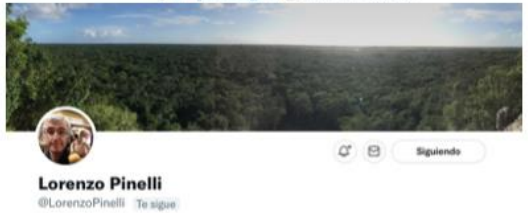
PERFILES PERSONALES

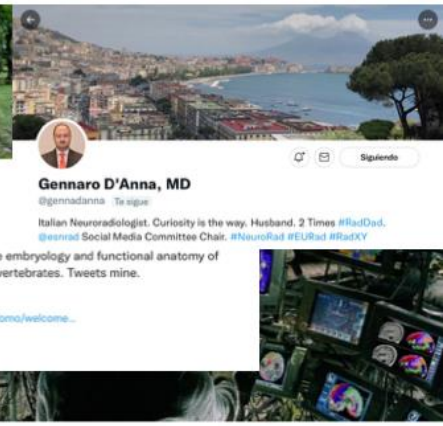


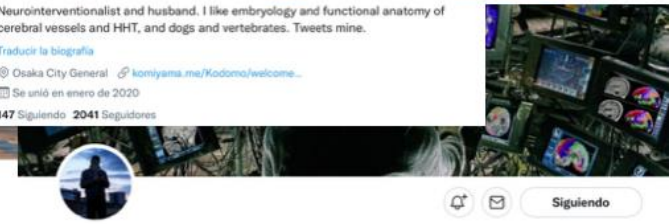












Siguiendo

María J. Díaz Candamio

@Vilavaite Te sigue

Scanning #Medicine and life with a #radiologist gaze Mostly RTs #RadXX #MSKRad #radiology Hospital Universitario A#Coruña Spain @Perbess en #español

A Coruña, Galicia, Spain vilavaite.wordpress.com Se unió en marzo de 2010

20.315 Siguiendo **22.855** Seguidores

María J. Díaz Candamio
@Vilavaite

Don't miss the latest @Radiographics issue‼️

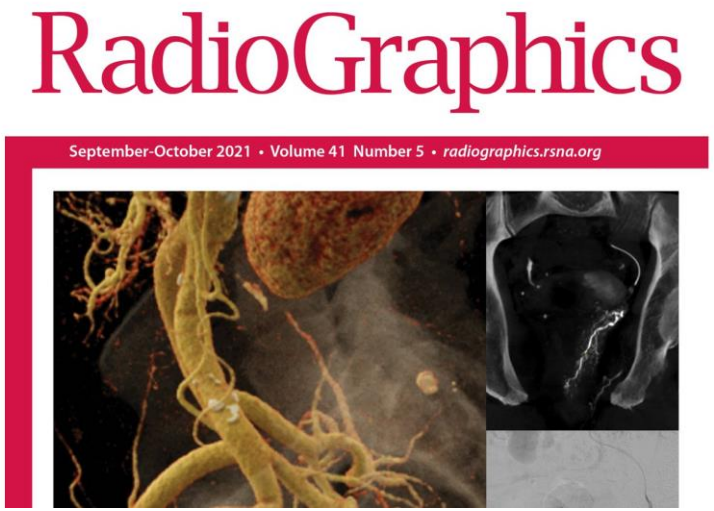
🆓Free for just a few hours⁉️🤫

▶️ https: //t.co/OHcdp3rutJ

Beautiful cover:
Prostatic artery embolization of the

@cookyscan1
#Radiology #RadCME #RadRes
#FOAMRad #RadEd #Radiología

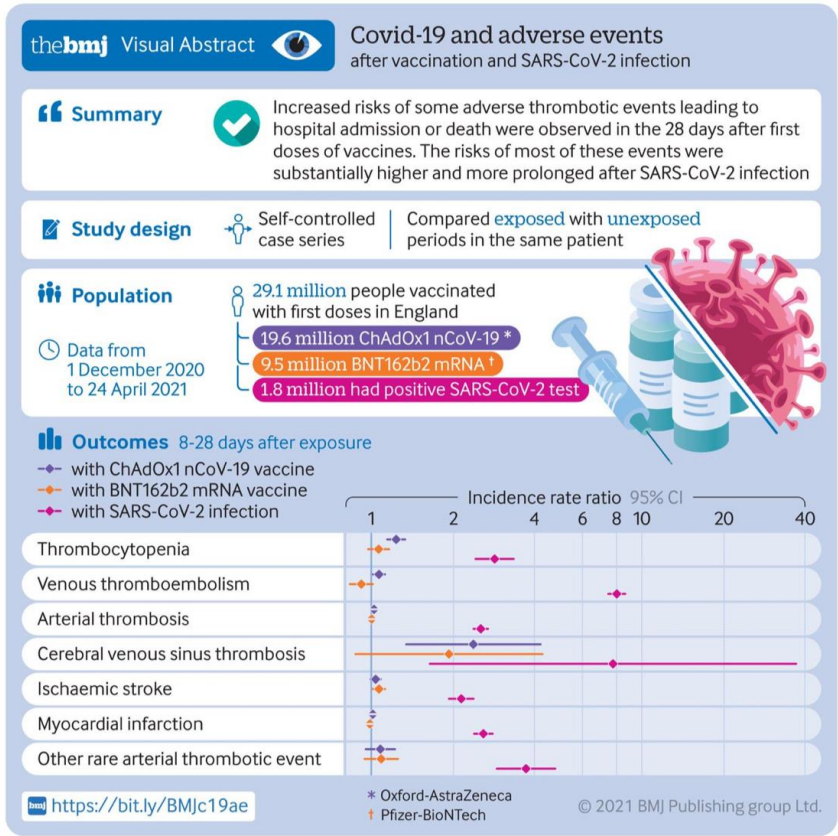
Traducir Tweet



María J. Díaz Candamio @Vilavaite · 27/8/21

Increased risks of haematological and vascular events that led to hospital admission or death observed for short time intervals after first doses of AstraZeneca and Pfizer vaccines

Risks were higher and more prolonged after COVID19 than after vaccination
bmj.com/content/374/bm...



Siguiendo

Tan-Lucien Mohammed, MD, FACR

@TLHM_MD Te sigue

Chest Radiologist by day // Chest radiologist by night, too // Equanimity under duress // My tweets are my own // RTs, ❤️s, follows ≠ support

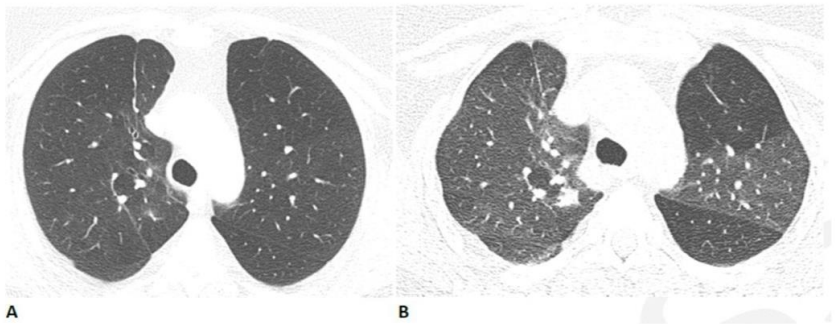
Traducir la biografía

United States tlhmrads.com Se unió en febrero de 2018

463 Siguiendo **4431** Seguidores

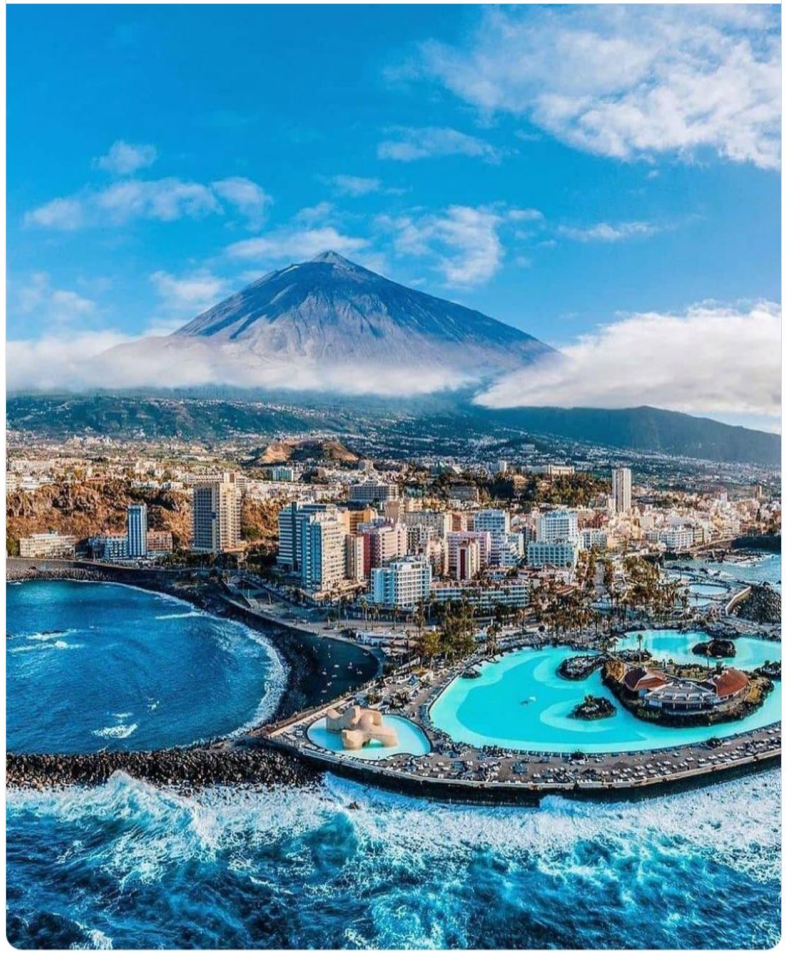
Tan-Lucien Mohammed, MD, FACR @TLHM_MD · 11min

#RT - long-term chest imaging abnormalities in patients who have recovered from acute #COVID19 infection 🫁 From @RSNA #radiology #chestrad @edonnellymdphd @LucyModahlMD @hochhegger @RituGill2014 @ShravSridhar @LeahMuhmLin @farouk_dako @BrixeyAnu @AshleyEProsper @cfmunozn

> **RSNA** @RSNA · 14h
>
> A subset of people recovering from #COVID19 will have persistent chest imaging abnormalities. This study, published in @radiology_rsna, reviews the long-term chest imaging abnormalities in patients who have recovered from acute infection. bit.ly/3s5jKos #ChestRad
>
> 
>
>
> Radiology

Tan-Lucien Mohammed, MD, FACR @TLHM_MD · 14h

Terrific Tenerife, #Spain 🇪🇸

> **Vacations** 🏖️ @vacationhotelss · 2d
>
> Tenerife, Spain
>
> 

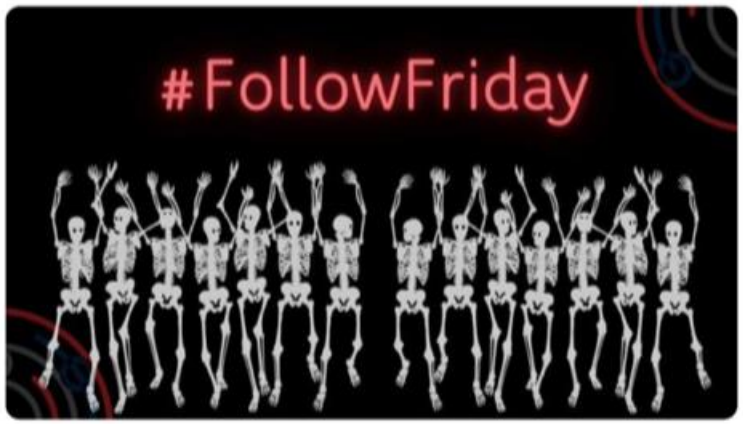
Tan-Lucien Mohammed, MD, FACR
@TLHM_MD

Augment your #neurorad knowledge when you follow these amazing educators:

@RyanBPetersonMD
@JudyGadde
@EMiddlebrooksMD
@vmargar
@tabby_kennedy
@aaronrutman
@WendeNGibbs
@MohitAgNeurorad
@PhilipRChapman1
@mossabas

#FOAMrad #radiology #radfollowfriday

Traducir Tweet



@RyanBPetersonMD
@JudyGadde
@EMiddlebrooksMD
@vmargar
@tabby_kennedy
@aaronrutman
@WendeNGibbs
@MohitAgNeurorad
@PhilipRChapman1
@mossabas

Siguiendo

Ryan Peterson 🇸🇪

@RyanBPetersonMD Te sigue

#Neurorad @ Emory. Former #ERrad. Assoc PD- #radres & #TY.#FOAMed #FOAMrad. #Dad. Classy on the inside, scrubs on the outside. 😍#Swedish things #EmoryRadCOTD

Traducir la biografía

Atlanta, GA Se unió en julio de 2016

997 Siguiendo **7295** Seguidores

Tweets | Tweets y respuestas | Multimedia | Me gusta

3 10

Ryan Peterson 🇸🇪 @RyanBPetersonMD · 17/8/21

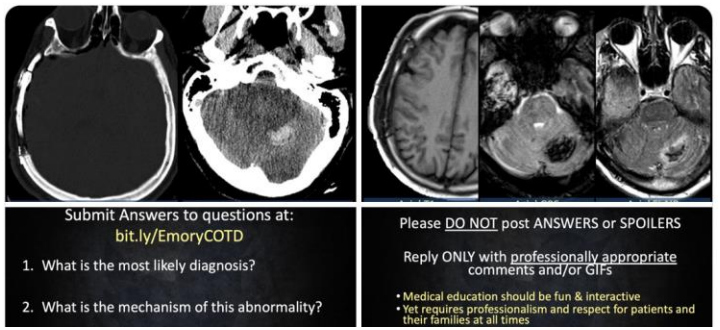
Emory Radiology COTD #180

Hx: Prior GBM now post op scan following right frontal craniotomy for resection

NO SPOILERS!!! Give answers with GIFs ONLY or submit to bit.ly/EmoryCOTD

Answer in 24 hrs

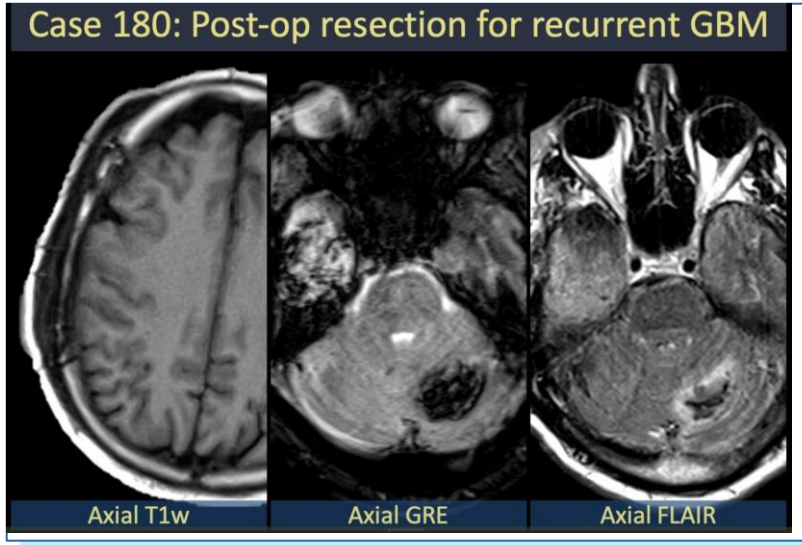
#Neuro #Neurorad #Neurosurg #FOAMed #FOAMrad #radres #EmoryRadCOTD

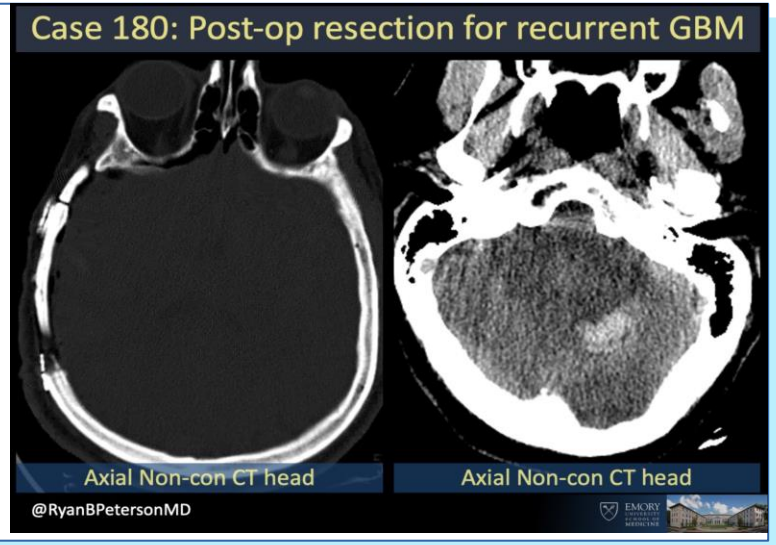


Case 180 Questions

Submit Answers to questions at:
bit.ly/EmoryCOTD

1. What is the most likely diagnosis?
2. What is the mechanism of this abnormality?
3. What are potential proposed risk factors for developing this abnormality?

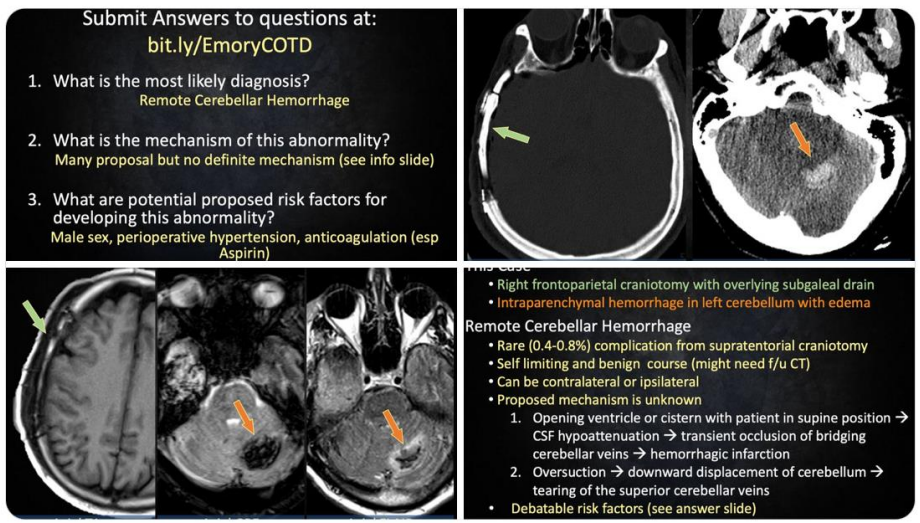




Ryan Peterson 🇸🇪 @RyanBPetersonMD · 18/8/21

Answer: Remote Cerebellar Hemorrhage

Cerebellar hemorrhage (intraparenchymal or subarachnoid hemorrhage… the ZEBRA sign) due to pressure changes from supratentorial craniotomy. Can be ipsilateral or contralateral. Has benign course but unclear mechanism #EmoryRadCOTD



Case 180 Answers

Submit Answers to questions at:
bit.ly/EmoryCOTD

1. What is the most likely diagnosis?
   Remote Cerebellar Hemorrhage
2. What is the mechanism of this abnormality?
   Many proposal but no definite mechanism (see info slide)
3. What are potential proposed risk factors for developing this abnormality?
   Male sex, perioperative hypertension, anticoagulation (esp Aspirin)

Case 180: Remote Cerebellar Hemorrhage

This Case
- Right frontoparietal craniotomy with overlying subgaleal drain
- Intraparenchymal hemorrhage in left cerebellum with edema

Remote Cerebellar Hemorrhage
- Rare (0.4-0.8%) complication from supratentorial craniotomy
- Self limiting and benign course (might need f/u CT)
- Can be contralateral or ipsilateral
- Proposed mechanism is unknown
  1. Opening ventricle or cistern with patient in supine position → CSF hypoattenuation → transient occlusion of bridging cerebellar veins → hemorrhagic infarction
  2. Oversuction → downward displacement of cerebellum → tearing of the superior cerebellar veins
- Debatable risk factors (see answer slide)
- Don't confuse this for more ominous pathology

Reference: Amini et al. AJNR. 2005

Siguiendo

Judy Gadde, DO, MBA

@JudyGadde Te sigue

Pediatric Neuroradiologist. Cofounder @RadiologySIG. @HarvardMacy scholar. Lurie Children's Hospital of Chicago. #MedEd #LuriePedsNeuro
NeuroradiologyU.com

Chicago, IL luriechildrens.org/en/doctors/gad... Fecha de nacimiento 20 de julio

Se unió en abril de 2017

2207 Siguiendo **6781** Seguidores

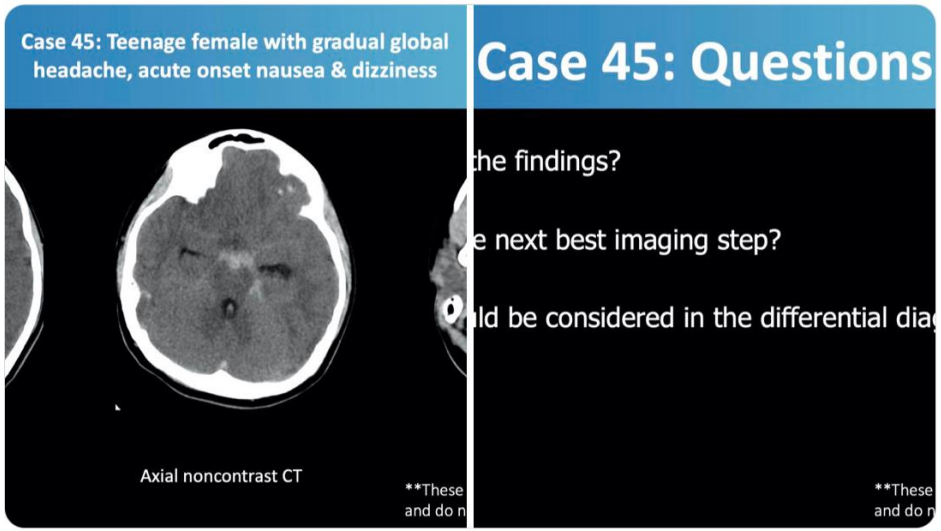
Judy Gadde, DO, MBA @JudyGadde · 3d

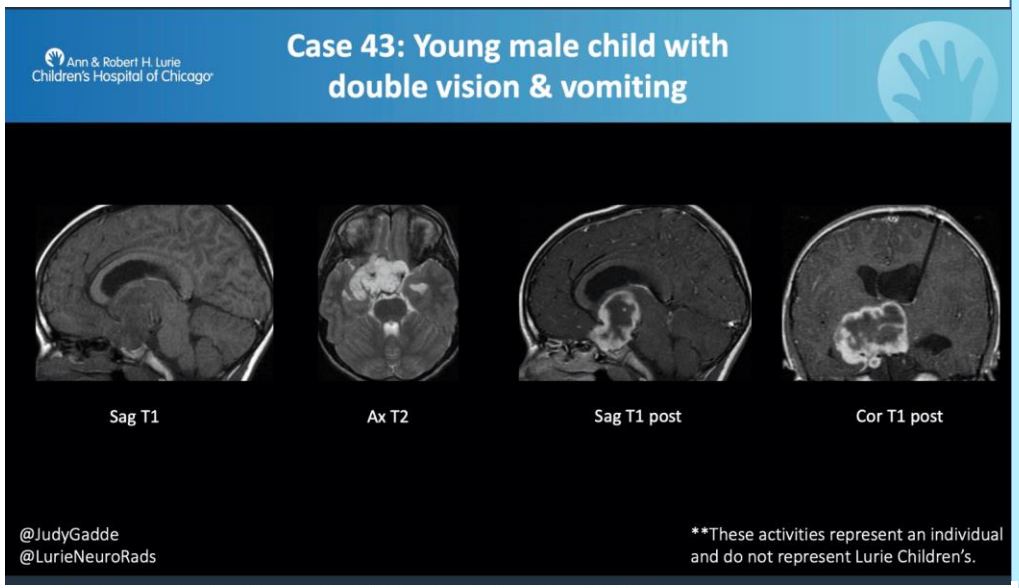
Lurie Peds Neuro Case #45

History: Teenage female with gradual global headache, acute onset nausea & dizziness

*Only reply with GIFs. NO answers or spoilers.

#LuriePedsNeuro #FOAMrad #FOAMed #MedEd #NeuroRad #PediNeuroRad @LurieNeuroRads





Judy Gadde, DO, MBA @JudyGadde · 18/8/21

En respuesta a @JudyGadde

What is the most likely diagnosis?

Craniopharyngioma	**80 %**
Astrocytoma	14 %
Rathke cleft cyst	3 %
Diabetes insipidus	3 %

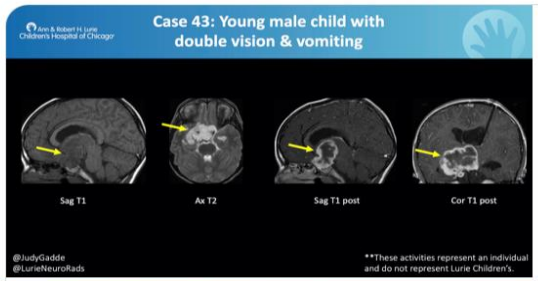
Judy Gadde, DO, MBA @JudyGadde · 20/8/21

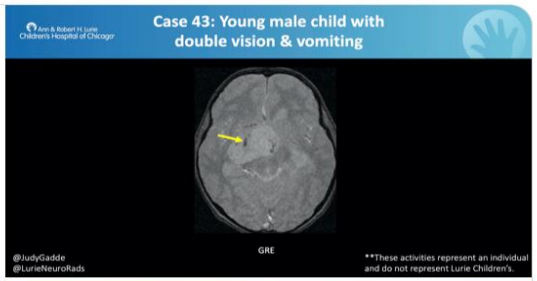
En respuesta a @JudyGadde

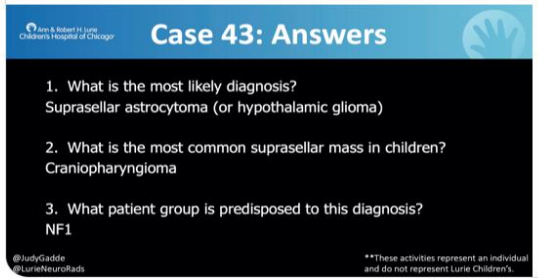
ANSWER: Suprasellar astrocytoma/hypothalamic glioma

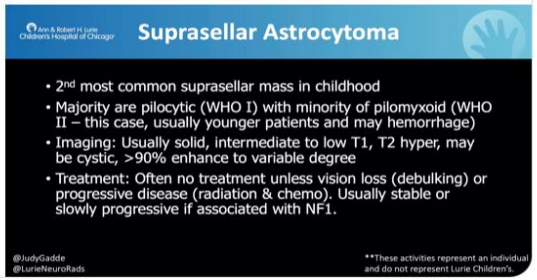
Often stable or slowly growing, especially if associated with NF1. Usually T2 hyperintense and enhances.

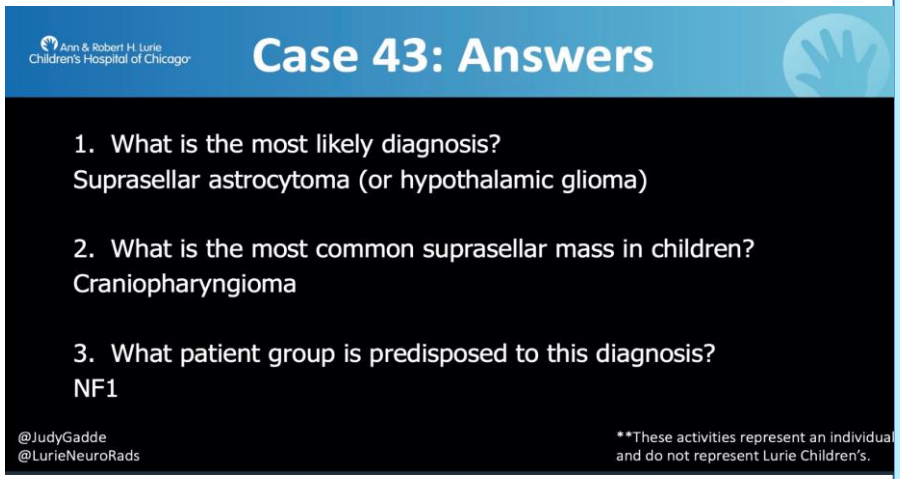
#LuriePedsNeuro #COTW #radres #futureradres #radiology #radtwitter #neurotwitter #FOAMrad #FOAMed

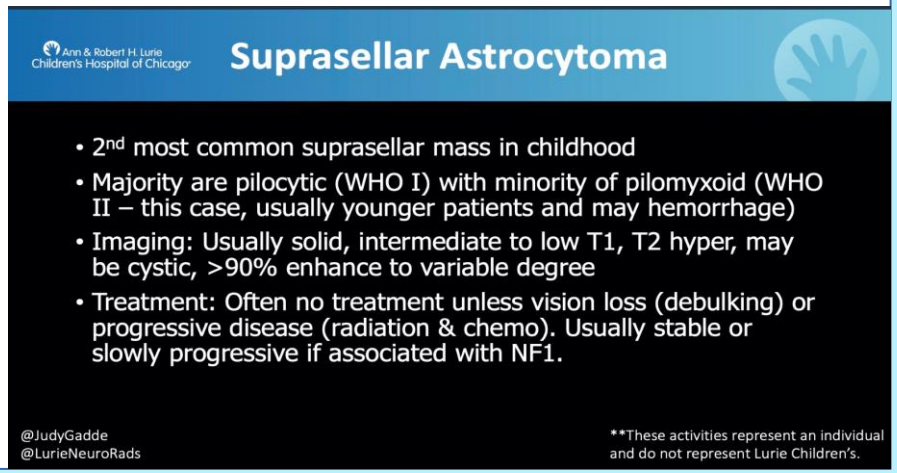












Siguiendo

Aaron Rutman, MD

@aaronrutman Te sigue

Neuroradiologist, @kpwashington, @UWRadiology clinical assistant professor, UW SOM #neuroanatomy instructor; photography, guitar, baseball, dad of 3 #neurorad

Seattle, WA aaronrutmanphotography.com Se unió en junio de 2014

342 Siguiendo **1866** Seguidores

Aaron Rutman, MD
@aaronrutman

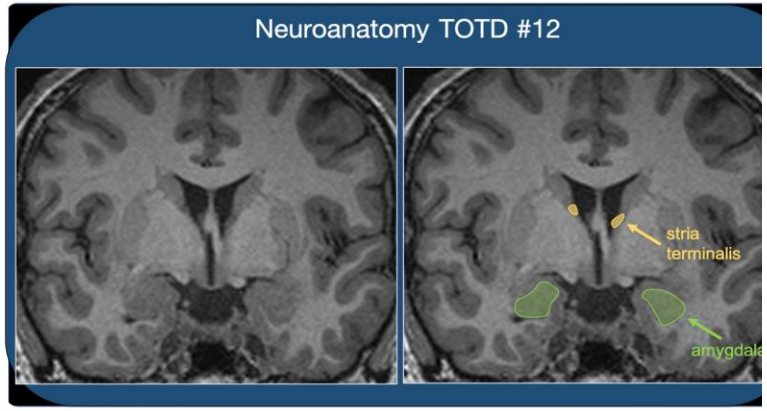
Neuroanatomy TOTD #12

The green structure is the amygdala (amygdaloid body) an the yellow structure is the stria terminalis (ST).

1/18

#meded #FOAMed #FOAMrad #medtwitter #medstudent #radiology #neurorad #radres #neurology #neurosurgery #neuroanatomy #neuroanatomyTOTD

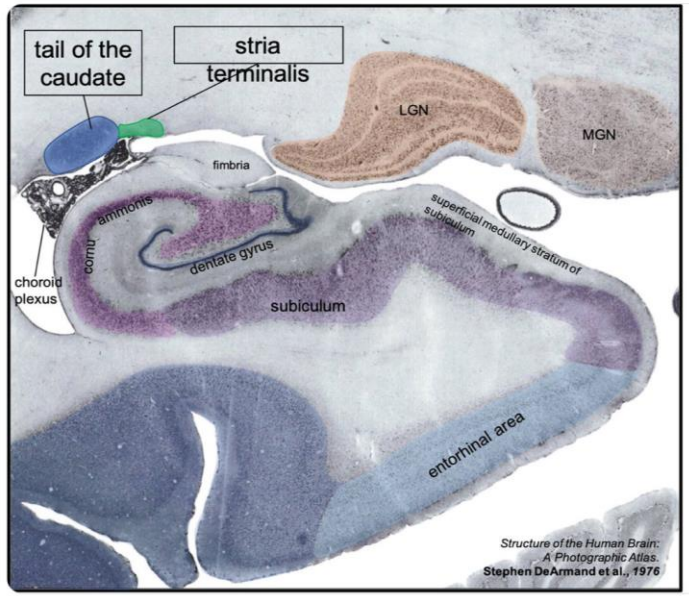
Traducir Tweet



Aaron Rutman, MD @aaronrutman · 2/12/20

ST emanates from the amygdala adjacent to the hippocampal fimbri and extends posteriorly along the roof of the temporal horn medial t the caudate tail. The proximal ST is not well seen on imaging--not distinguished from the fimbria, caudate tail, and choroid plexus.

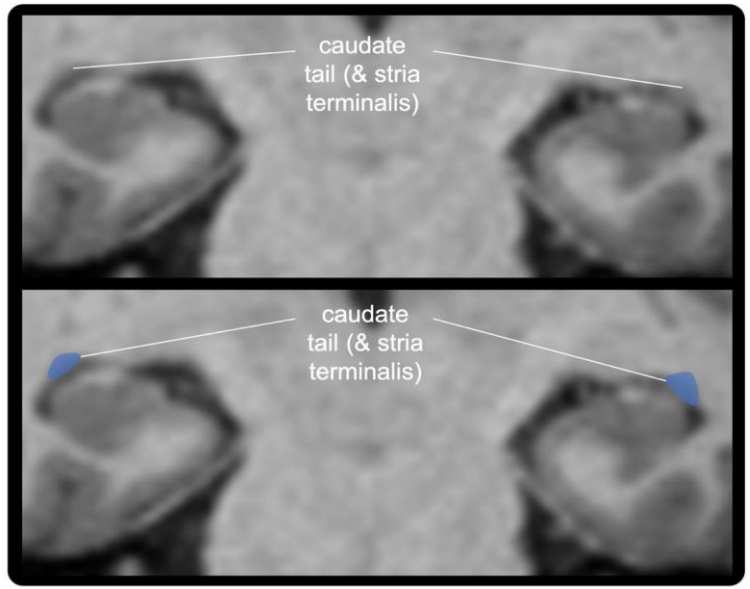
5/18

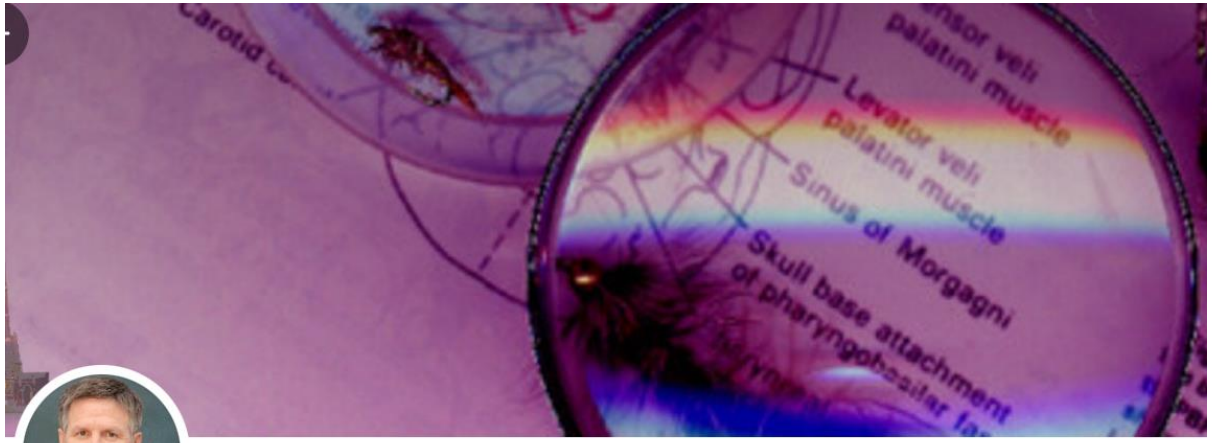


Aaron Rutman, MD @aaronrutman · 2/12/20

Have seen residents mistake this periventricular gray matter for abnormal GM heterotopia when prominent. Nope—this is normal caudate tail/ST along roof of the temp horn of lat ventricle-variable in size across patients, some subtle (like this image), some more prominent.

6/18





Siguien

Philip R. Chapman, MD

@PhilipRChapman1 Te sigue

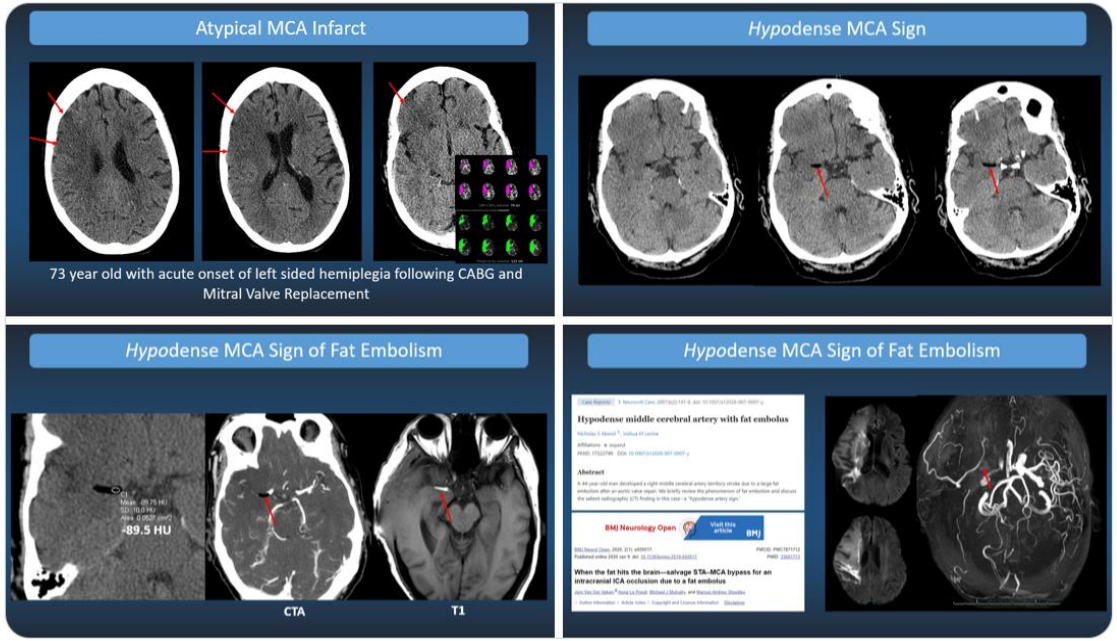
Neuroradiologist | Neuroradiology education | Sharing the interesting neuro where the images tell the story |

Durham, NC Se unió en mayo de 2019

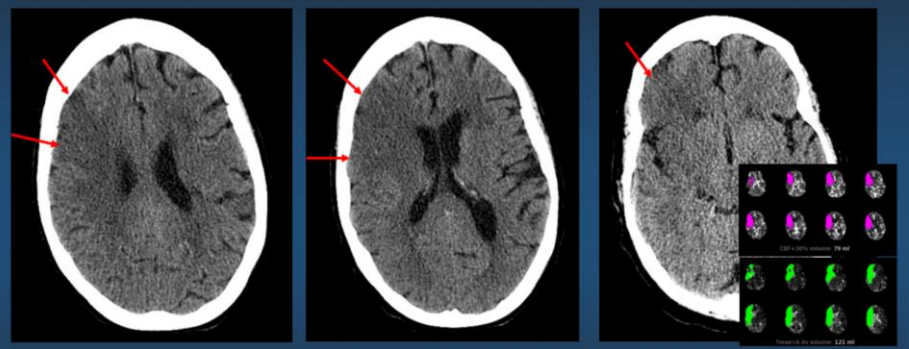
522 Siguiendo **3203** Seguidores

Philip R. Chapman, MD @PhilipRChapman1 · 26/8/21

Fat embolism syndrome of brain usually refers to extensive embolism of microscopic fat to the brain after trauma or surgery resulting in numerous tiny infarcts with microhemorrhage. But embolization of macroscopic fat can take on a different appearance.

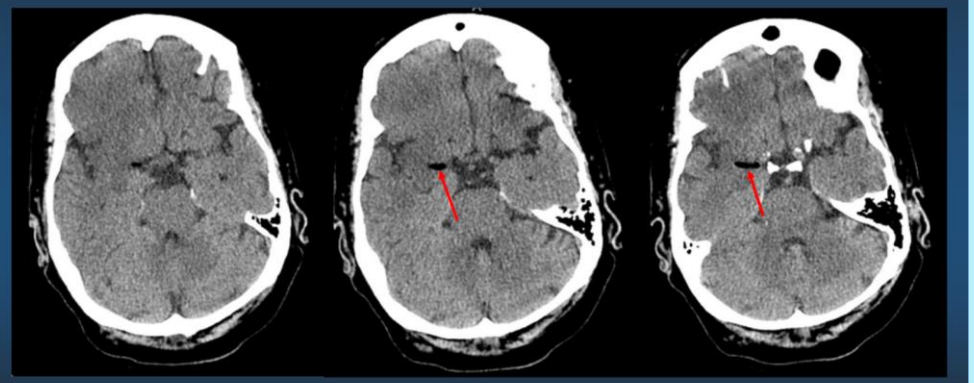


Atypical MCA Infarct



73 year old with acute onset of left sided hemiplegia following CABG and Mitral Valve Replacement

*Hypo*dense MCA Sign



*Hypo*dense MCA Sign of Fat Embolism

Case Reports > Neurocrit Care. 2007;6(2):147-8. doi: 10.1007/s12028-007-0007-y.

Hypodense middle cerebral artery with fat embolus

Nicholas S Abend [1], Joshua M Levine

Affiliations + expand

PMID: 17522799 DOI: 10.1007/s12028-007-0007-y

Abstract

A 44-year-old man developed a right middle cerebral artery territory stroke due to a large fat embolism after an aortic valve repair. We briefly review the phenomenon of fat embolism and discuss the salient radiographic (CT) finding in this case--a "hypodense artery sign."

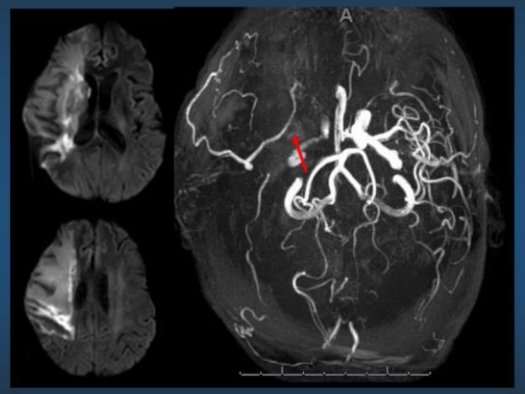
BMJ Neurology Open — Visit this article — BMJ

BMJ Neurol Open. 2020; 2(1): e000017. PMCID: PMC7871712
Published online 2020 Jan 9. doi: 10.1136/bmjno-2019-000017 PMID: 33681773

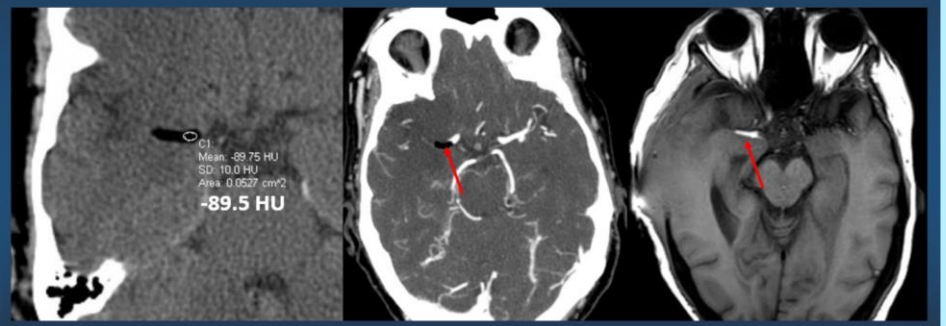
When the fat hits the brain—salvage STA–MCA bypass for an intracranial ICA occlusion due to a fat embolus

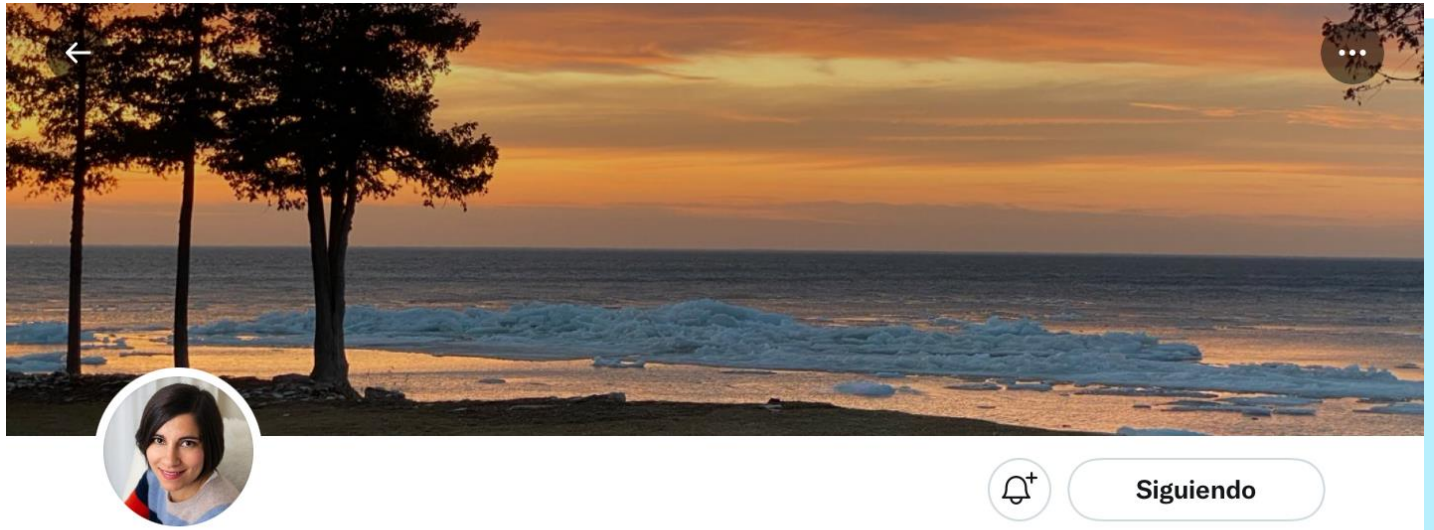
Jom Van Der Veken, Anna Le Presti, Michael J Mulcahy, and Marcus Andrew Stoodley

Author information • Article notes • Copyright and License information Disclaimer



*Hypo*dense MCA Sign of Fat Embolism





Siguiendo

Tabby A. Kennedy, MD

@tabby_kennedy

Neuro + Head & Neck Radiologist | Wisconsin/MIR/PENN/Pomona/JBS | tweets my own learningheadandneck.com

learningneuroradiology.com Se unió en noviembre de 2017

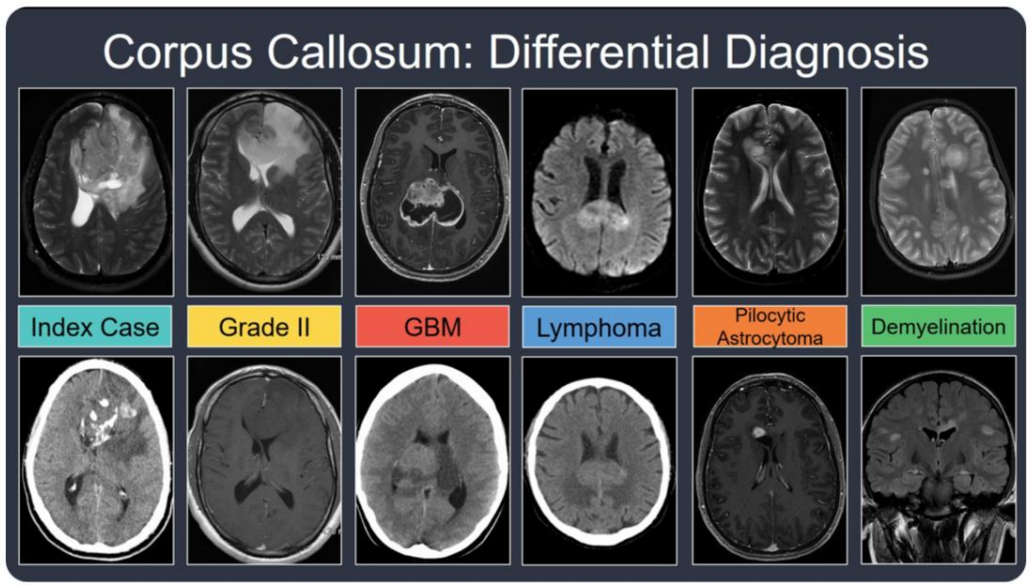
466 Siguiendo **3335** Seguidores

Tabby A. Kennedy, MD @tabby_kennedy · 4/8/21

DDx for Lesions in the Corpus Callosum: Includes the spectrum of glial neoplasms, lymphoma, demyelinating disease & toxic/metabolic conditions.

Want to learn about distinguishing imaging features?
Register for a great conference next week @TheASNR #CNC21 for more!

#Meded



Siguiendo

Wende Gibbs

@WendeNGibbs Te sigue

Neuroradiologist, Alum: @BarrowNeuro @GeorgetownSFS #Spine #Oncology #Standardization and reporting #AI/#ML Quality and value

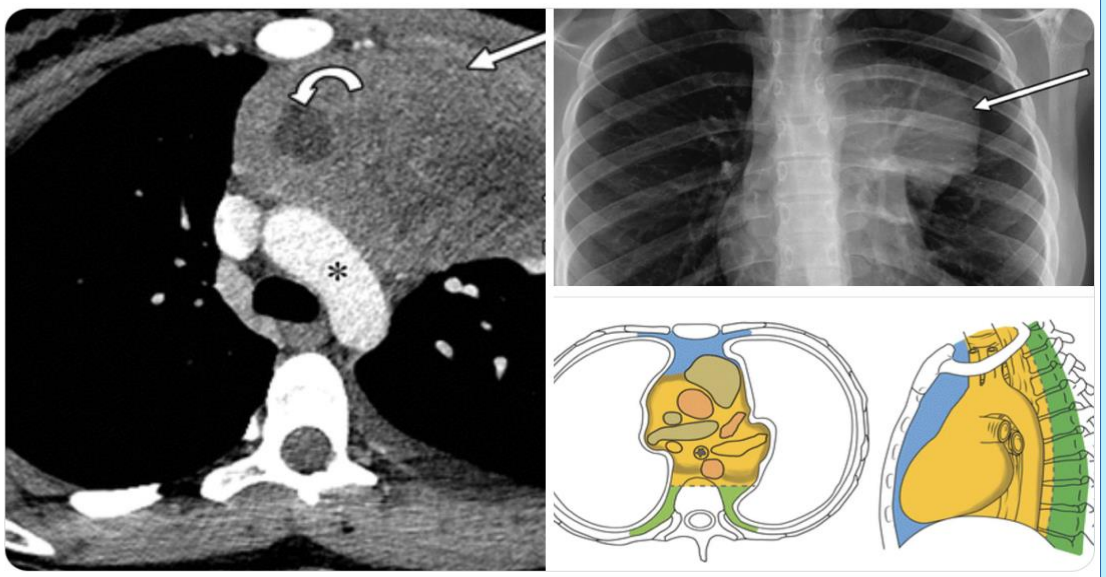
linkedin.com/in/wende-gibbs... Fecha de nacimiento 1 de enero de 1980

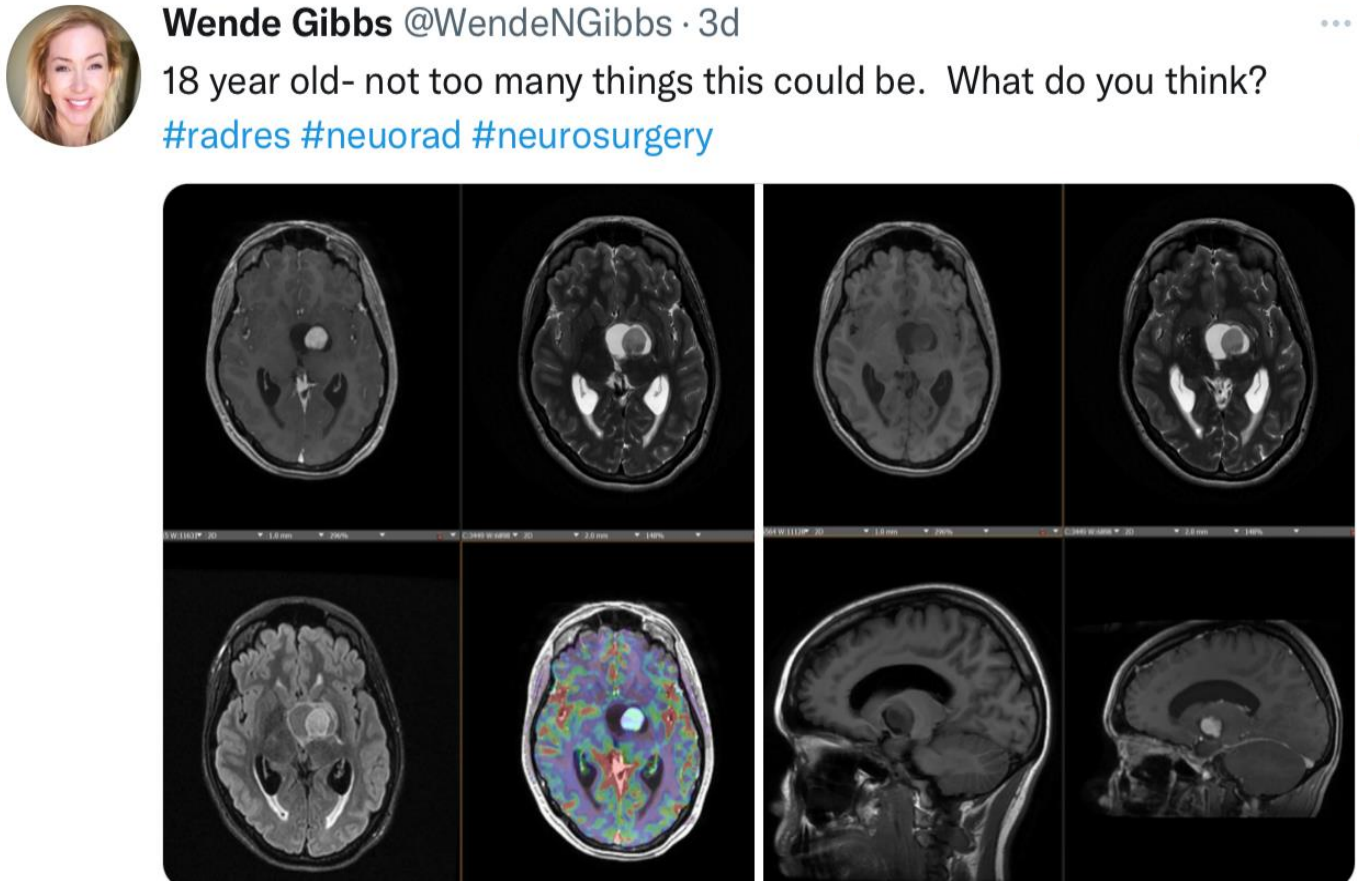
Se unió en mayo de 2016

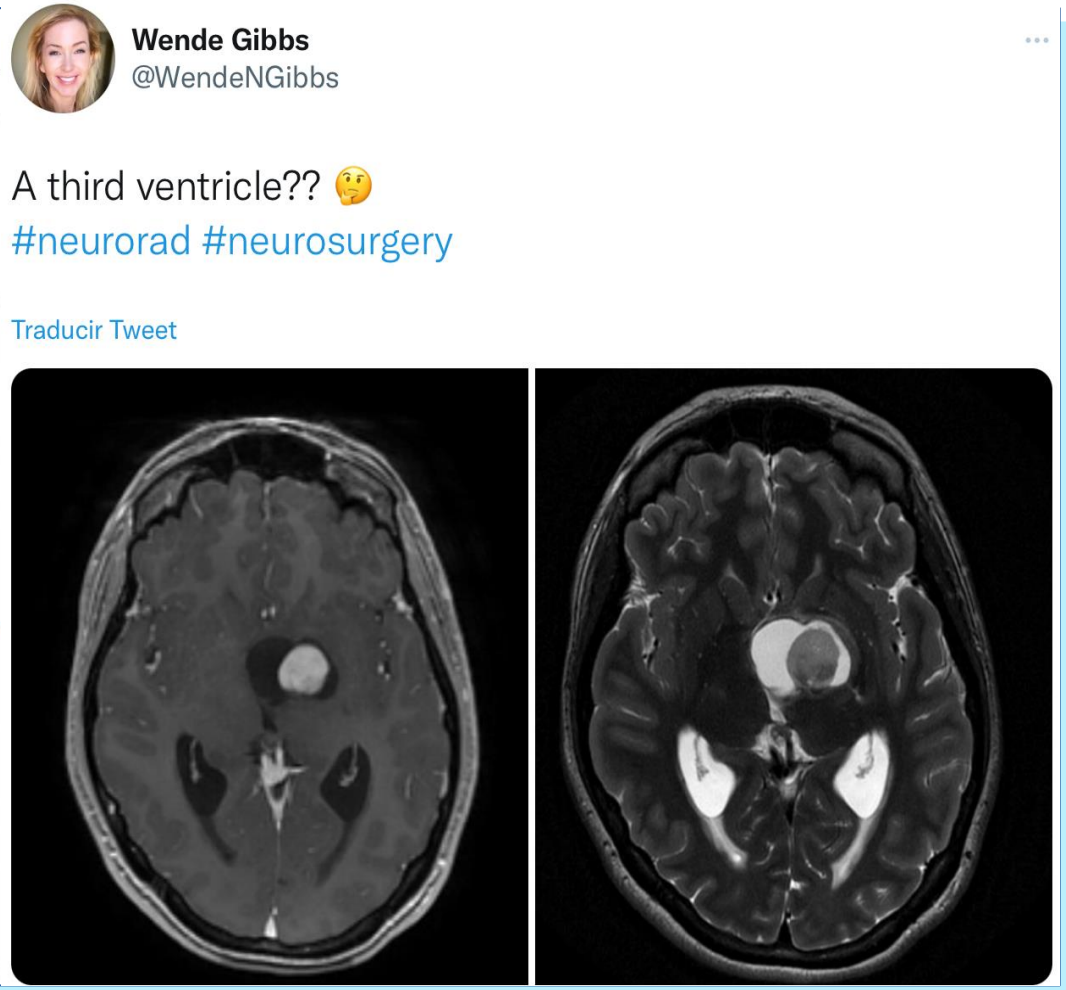
3284 Siguiendo **6480** Seguidores

Wende Gibbs @WendeNGibbs · 2d

Do you know how to approach a mass like this one? Great podcast describing an approach to mediastinal masses @RadioGraphics : rsnaradiographics.libsyn.com/issue-summary-... #radres #foamed #FOAMrad




Wende Gibbs @WendeNGibbs · 3d
18 year old- not too many things this could be. What do you think?
#radres #neuorad #neurosurgery


Wende Gibbs
@WendeNGibbs
A third ventricle?? 🤔
#neurorad #neurosurgery
Traducir Tweet

Siguiendo

Mohit Agarwal

@MohitAgNeurorad Te sigue

Director Neuroradiology Fellowship Program MCW Milwaukee lifelong learner and educator @MCWNeurorad #MCWNeuroradBTW #TheCortexClub #potterhead

Milwaukee United States Fecha de nacimiento 2 de octubre

Se unió en abril de 2017

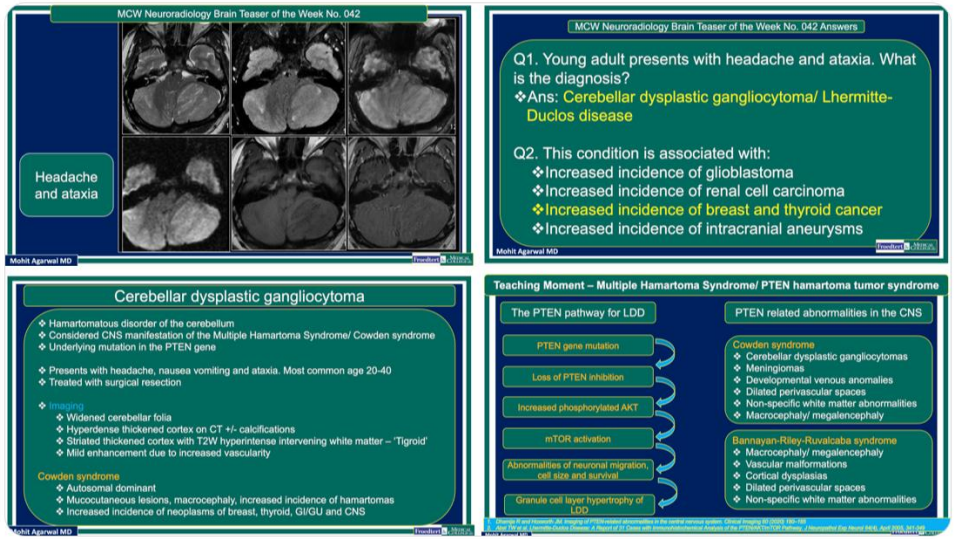
753 Siguiendo **2031** Seguidores

Mohit Agarwal @MohitAgNeurorad · 20/8/21

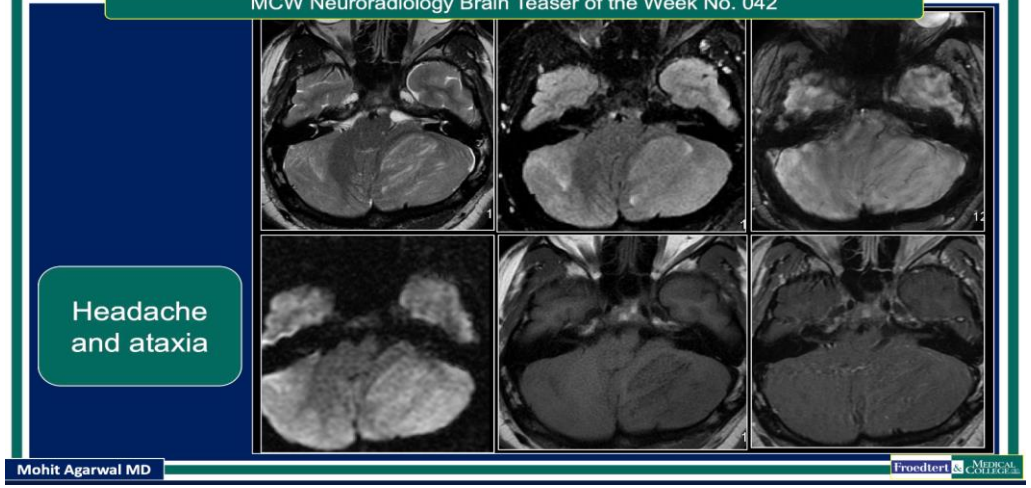
#MCWNeuroradBTW 042 Ans: Lhermitte-Duclos

Check out #TeachingMoment on PTEN in CNS

#FOAMed #FOAMrad #radres #MedEd @TheASNR @ARRS_Radiology @BSHNI_UK @ESNRad @BshniTrainees @RANZCRcollege @ESHNRSociety @RadDiscord @MCWNeurorad @theASFNR @MCWRadIntGroup @The_ASPNR



MCW Neuroradiology Brain Teaser of the Week No. 042



Headache and ataxia

Mohit Agarwal MD

Froedtert & Medical College

MCW Neuroradiology Brain Teaser of the Week No. 042 Answers

Q1. Young adult presents with headache and ataxia. What is the diagnosis?

- Ans: Cerebellar dysplastic gangliocytoma/ Lhermitte-Duclos disease

Q2. This condition is associated with:

- Increased incidence of glioblastoma
- Increased incidence of renal cell carcinoma
- Increased incidence of breast and thyroid cancer
- Increased incidence of intracranial aneurysms

Mohit Agarwal MD

Froedtert & Medical College

Cerebellar dysplastic gangliocytoma

- Hamartomatous disorder of the cerebellum
- Considered CNS manifestation of the Multiple Hamartoma Syndrome/ Cowden syndrome
- Underlying mutation in the PTEN gene

- Presents with headache, nausea vomiting and ataxia. Most common age 20-40
- Treated with surgical resection

- Imaging
  - Widened cerebellar folia
  - Hyperdense thickened cortex on CT +/- calcifications
  - Striated thickened cortex with T2W hyperintense intervening white matter – 'Tigroid'
  - Mild enhancement due to increased vascularity

Cowden syndrome

- Autosomal dominant
- Mucocutaneous lesions, macrocephaly, increased incidence of hamartomas
- Increased incidence of neoplasms of breast, thyroid, GI/GU and CNS

Mohit Agarwal MD

Froedtert & Medical College

Teaching Moment – Multiple Hamartoma Syndrome/ PTEN hamartoma tumor syndrome

The PTEN pathway for LDD

PTEN gene mutation

↓

Loss of PTEN inhibition

↓

Increased phosphorylated AKT

↓

mTOR activation

↓

Abnormalities of neuronal migration, cell size and survival

↓

Granule cell layer hypertrophy of LDD

PTEN related abnormalities in the CNS

Cowden syndrome

- Cerebellar dysplastic gangliocytomas
- Meningiomas
- Developmental venous anomalies
- Dilated perivascular spaces
- Non-specific white matter abnormalities
- Macrocephaly/ megalencephaly

Bannayan-Riley-Ruvalcaba syndrome

- Macrocephaly/ megalencephaly
- Vascular malformations
- Cortical dysplasias
- Dilated perivascular spaces
- Non-specific white matter abnormalities

1. Dhamija R and Hoxworth JM. Imaging of PTEN-related abnormalities in the central nervous system. Clinical Imaging 60 (2020) 180–185
2. Abel TW et al. Lhermitte-Duclos Disease: A Report of 31 Cases with Immunohistochemical Analysis of the PTEN/AKT/mTOR Pathway. J Neuropathol Exp Neurol 64(4), April 2005, 341-349

Siguiendo

Masaki Komiyama 🇯🇵

@kanachan2020

Neurointerventionalist and husband. I like embryology and functional anatomy of cerebral vessels and HHT, and dogs and vertebrates. Tweets mine.

Traducir la biografía

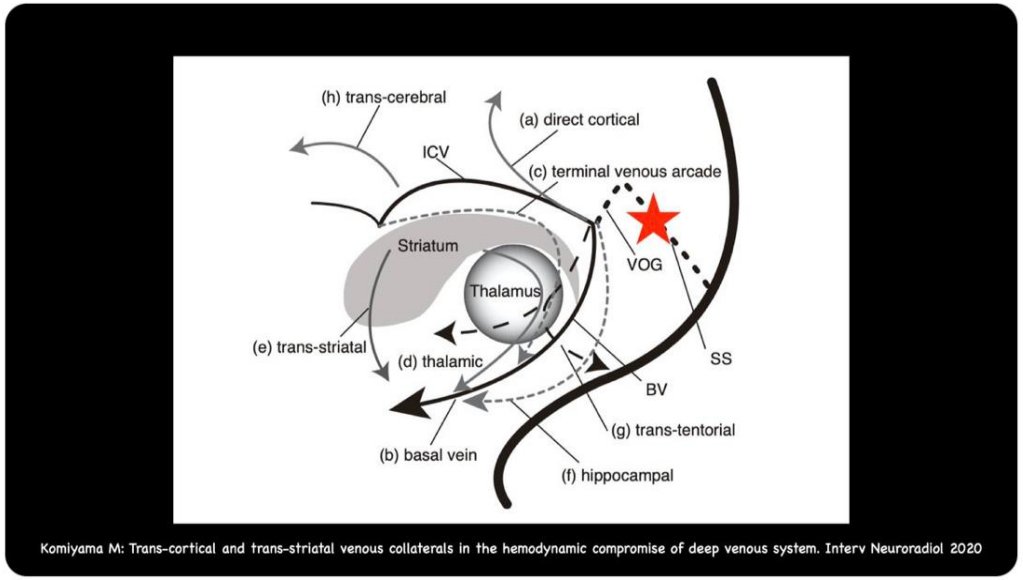
Osaka City General komiyama.me/Kodomo/welcome...

Se unió en enero de 2020

147 Siguiendo **2041** Seguidores

Masaki Komiyama 🇯🇵 @kanachan2020 · 19/7/21

Cerebral venous system is composed of superficial and deep systems. When normal drainage route of the deep one is compromised, collaterals between two systems will function. They include trans-medullary (cerebral), trans-striatal, thalamic vein, etc. doi.org/10.1177/159101...

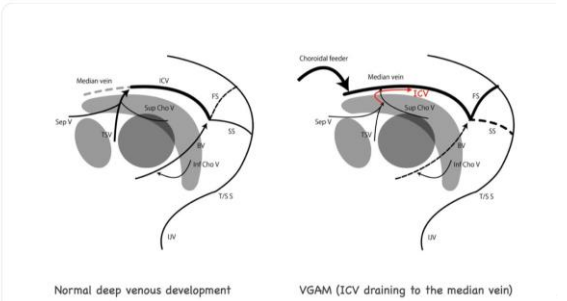


Masaki Komiyama 🇯🇵 @kanachan2020 · 20/8/21

Internal cerebral vein connection to the varix in vein of Galen aneurysmal malformation

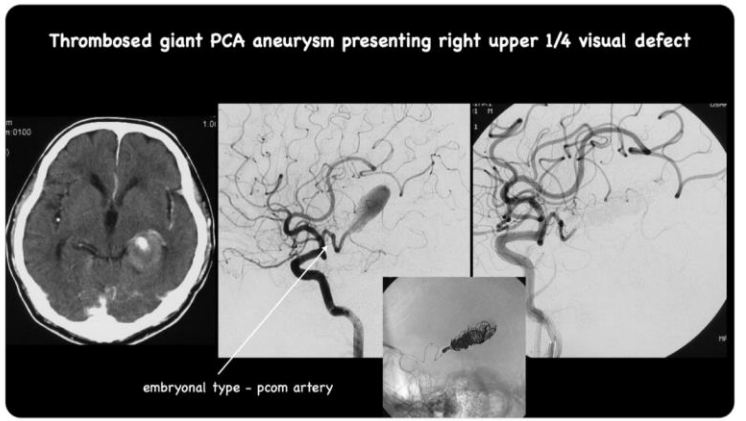
It has been believed that there is no connection between ICV and Galenic vein in VGAM, which is theoretical basis of transvenous embolization.

This is not true. Such connection may exists!



Masaki Komiyama 🇯🇵 @kanachan2020 · 8/5/21

Embryologically, P2-4 of PCA are telencephalic branches of primitive anterior choroidal artery. Thus, there are various variations of Acho artery and PCA branching. This also suggests high tolerance of proximal PCA sacrifice for PCA An due to rich leptomeningeal collaterals.



Siguiendo

Ahmed Elkady, MSc

@ahkady86 Te sigue

Medicine is a science of uncertainty and an art of probability

Traducir la biografía

Jeddah, Kingdom of Saudi Arabi Fecha de nacimiento 31 de diciembre

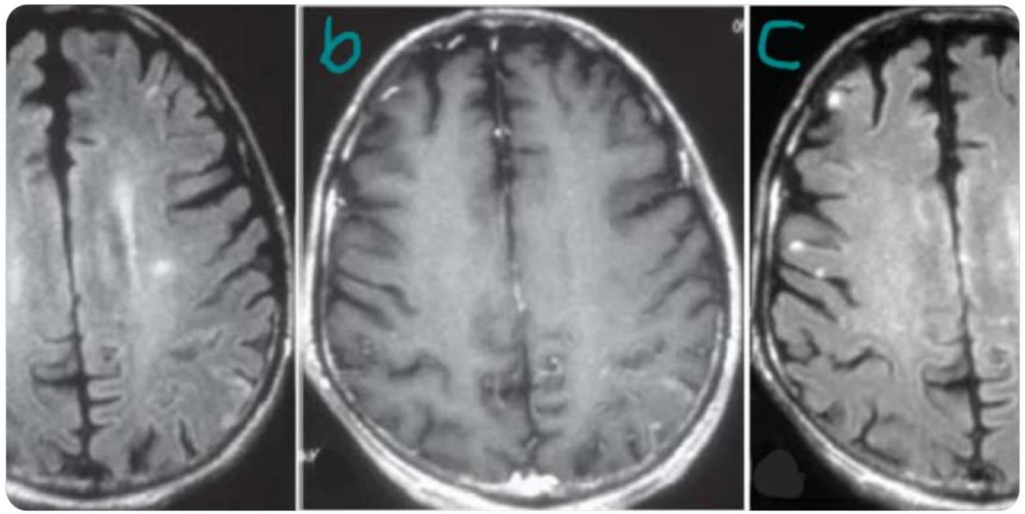
Se unió en abril de 2019

57 Siguiendo **122** Seguidores

Ahmed Elkady, MSc @ahkady86 · 27/7/21

#FOAMed #FOAMneu
#neurorad @vmargar

Case Sc: Male pt 65 yo, lung SCC, has severe headache, & seizures
a) Flair multiple hyperintense lesions; b) T1 contrast enhanced (CE) unremarkable; c) Flair CE multiple cortical enhanced lesions
Diagnosed Lepotomeningeal carcinomatosis



Ahmed Elkady, MSc @ahkady86 · 27/7/21

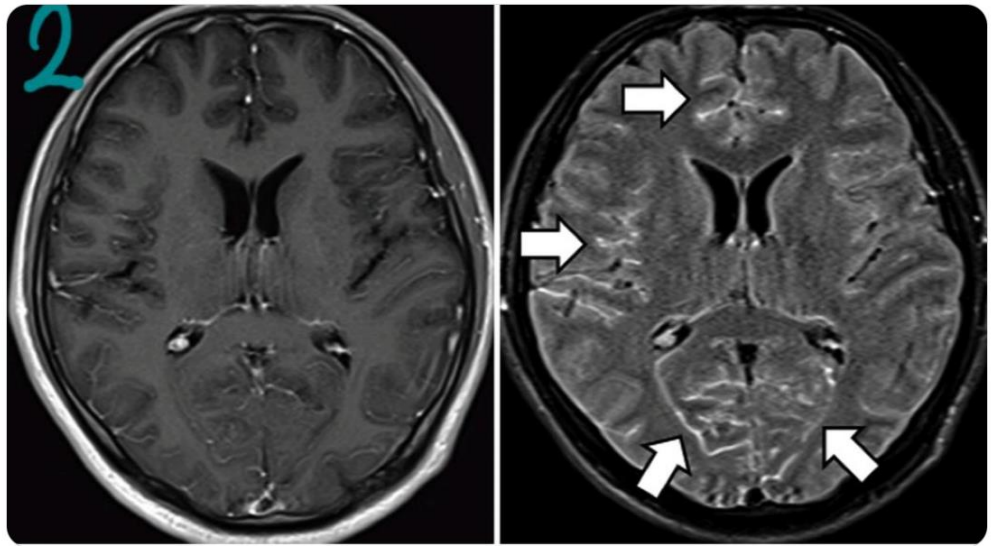
En respuesta a @ahkady86

Flair CE in CNS Disorders:
T1 CE faintly lesions might depicted more clearly on FLAIR CE, so highly effective in detection of sulcal or meningeal infection, inflammation and metastases, but marked T1 CE lesions show no FLAIR CE because the signal-reducing T2 effects obscure it

1

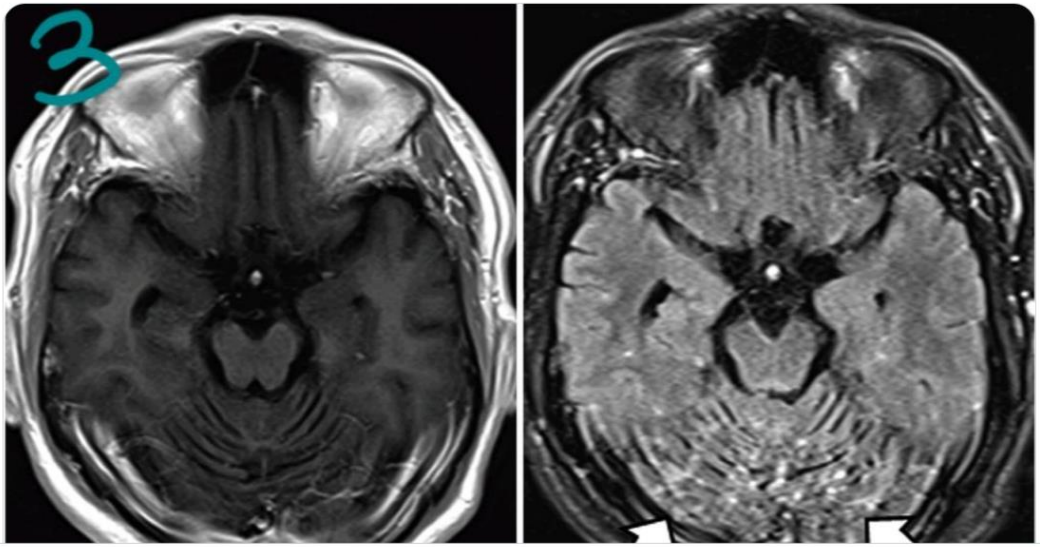
Ahmed Elkady, MSc @ahkady86 · 27/7/21

2. Leptomeningeal Infection
FLAIR CE is more effective than T1 CE as it doesn't demonstrate enhancement in the normal vascular or meninges that can be confused with abnormal enhancement on T1 CE, beside its extreme sensitivity to minimal modification of the CSF composition



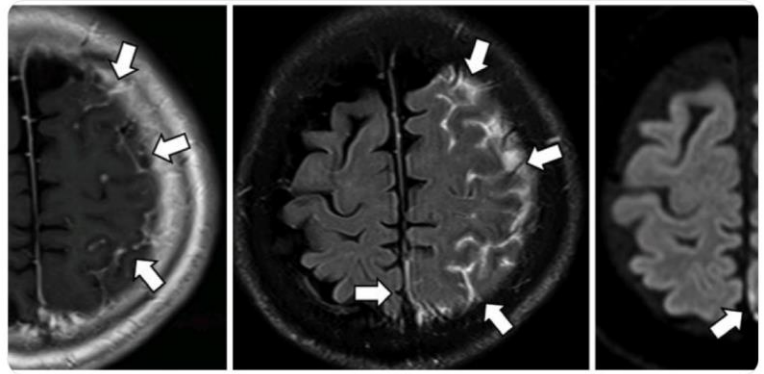
Ahmed Elkady, MSc @ahkady86 · 27/7/21

3. Leptomeningeal Neoplasm
CSF cytology is most specific test, but could be false-negative. T1 CE has been used as a reliable technique for confirming diagnoses and assessing the extent of a lesion and its response to therapy, FLAIR CE show superiority for leptomeningeal disease



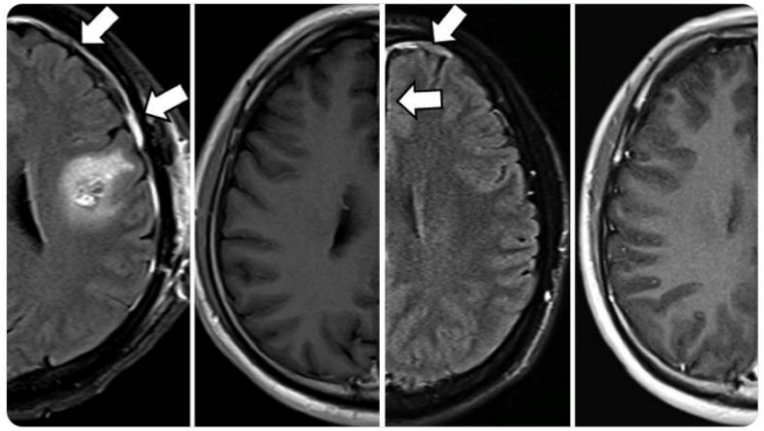
Ahmed Elkady, MSc @ahkady86 · 27/7/21

4. Rheumatoid leptomeningitis
is a rare but serious complication of RA. Characteristic MRI are high signal intensity lesions in the subarachnoid spaces on FLAIR images or DWI & meningeal thickening more prominent in Flair CE than T1 CE, especially with CCP antibodies



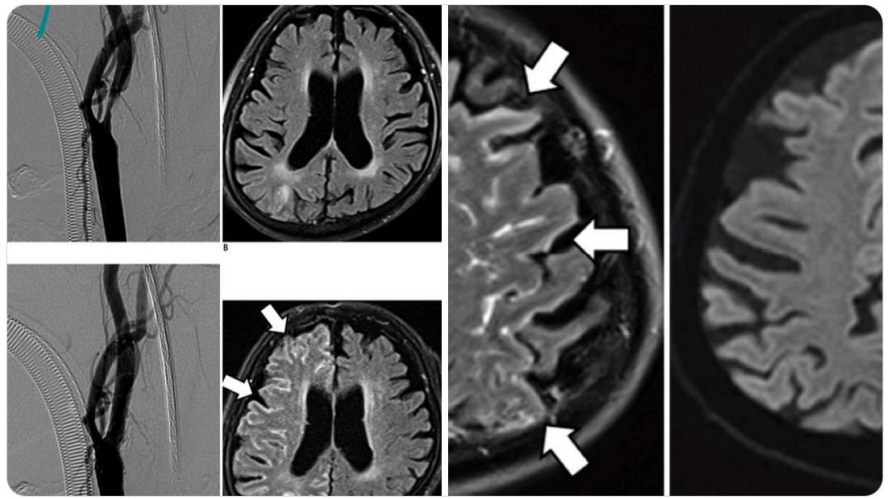
Ahmed Elkady, MSc @ahkady86 · 27/7/21

Pachymeningeal lesions
Postoperative (5) & posttraumatic (6) dural enhancement Flair CE is more extensive & persistent than T1CE. Posttraumatic dural enhancement implies considerable head injury, even minor lacerations that cause bleed into CSF are sufficient to induce Flair CE



Ahmed Elkady, MSc @ahkady86 · 27/7/21

Hyperintense Acute Reperfusion Marker (HARM)
Is Flair CE of subarachnoid CSF space, caused by leakage of Gd through disrupted BBB, transient wo neurological sympts post carotid stenting(7) Post cardiac surgery, or acute ischemia(8) due to hypoperfusion or thrombectomy procedure



1

Ahmed Elkady, MSc @ahkady86 · 27/7/21

doi.org/10.1148/rg.272...
doi.org/10.3348/kjr.20...

Siguiendo

Deborah Shatzkes

@DShatzkes Te sigue

#HNRAD, proud past president of @ASHNRSociety, @AIRP_Radiology faculty, mom/wife/lousy runner, tweets my own

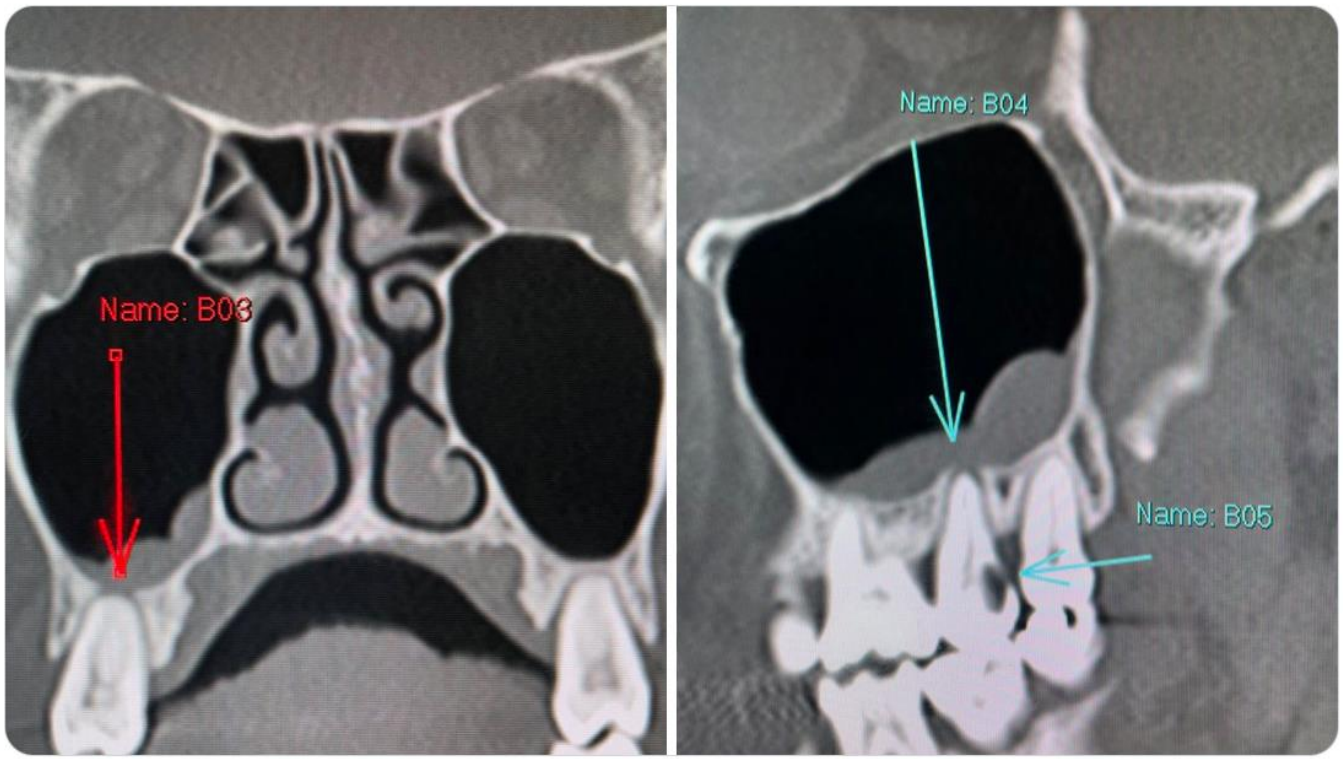
Traducir la biografía

Asbury Park, NJ Se unió en marzo de 2015

370 Siguiendo **2347** Seguidores

Deborah Shatzkes @DShatzkes · 19/8/21

Sometimes I think the most useful thing I do for patients is identify unsuspected odontogenic sinusitis. #dontforgettheteeth #doesntneedFESS @KateEDean @ASHNRSociety @ESHNRSociety #ASHNR21



Siguiendo

William T. O'Brien, Sr.

@CincyPedsNeuro Te sigue

Chief, Neuroradiology & Director, #PediNeuroRad Fellowship, @CincyKidsRad | @WestPoint_USMA & @PCOMeducation alum | @USAirForce retired | 🚑✈️🎖️🧠

Cincinnati, OH Fecha de nacimiento 7 de diciembre

Se unió en noviembre de 2017

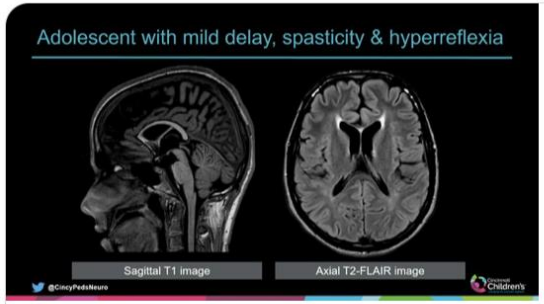
1481 Siguiendo **4253** Seguidores

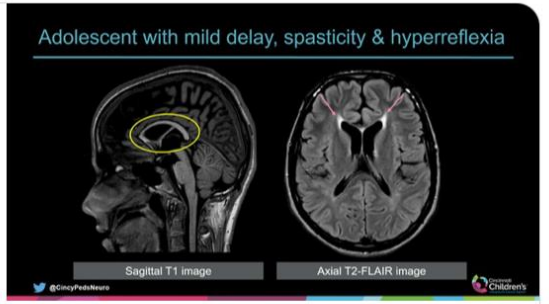
William T. O'Brien, Sr. @CincyPedsNeuro · 14/5/21

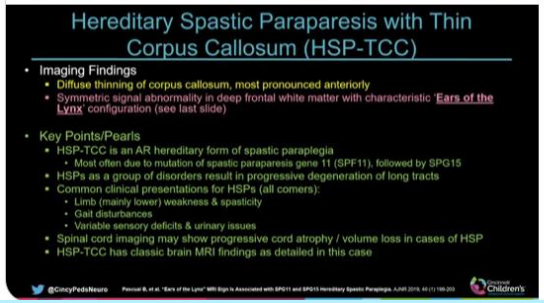
Challenging #PediNeuroRad Case
#CincyPedsNeuroCase for the Weekend

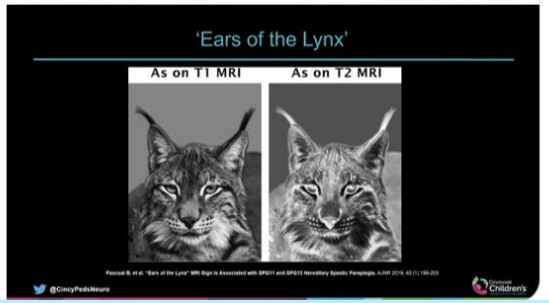
Slide 1: History & images at presentation
Slide 2: Annotated images
Slide 3: Answer & key points
Slide 4: Illustration of key finding

Have a great weekend...
#PedsRad #NeuroRad #RadRes #FOAMrad #MedEd

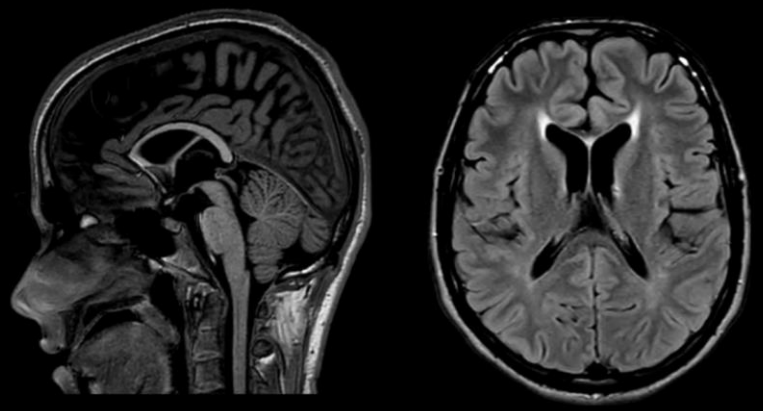








Adolescent with mild delay, spasticity & hyperreflexia

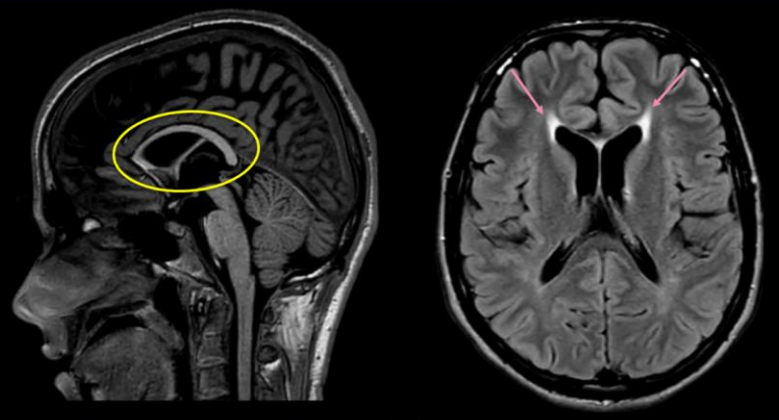


Sagittal T1 image | Axial T2-FLAIR image

@CincyPedsNeuro

Cincinnati Children's

Adolescent with mild delay, spasticity & hyperreflexia

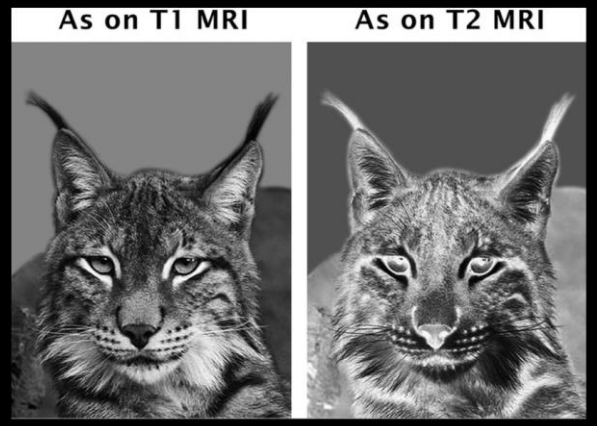


Sagittal T1 image | Axial T2-FLAIR image

@CincyPedsNeuro

Cincinnati Children's

'Ears of the Lynx'



Pascual B, et al. "Ears of the Lynx" MRI Sign Is Associated with SPG11 and SPG15 Hereditary Spastic Paraplegia. AJNR 2019; 40 (1) 199-203

@CincyPedsNeuro

Cincinnati Children's

Hereditary Spastic Paraparesis with Thin Corpus Callosum (HSP-TCC)

- Imaging Findings
  - Diffuse thinning of corpus callosum, most pronounced anteriorly
  - Symmetric signal abnormality in deep frontal white matter with characteristic '**Ears of the Lynx**' configuration (see last slide)
- Key Points/Pearls
  - HSP-TCC is an AR hereditary form of spastic paraplegia
    - Most often due to mutation of spastic paraparesis gene 11 (SPF11), followed by SPG15
  - HSPs as a group of disorders result in progressive degeneration of long tracts
  - Common clinical presentations for HSPs (all comers):
    - Limb (mainly lower) weakness & spasticity
    - Gait disturbances
    - Variable sensory deficits & urinary issues
  - Spinal cord imaging may show progressive cord atrophy / volume loss in cases of HSP
  - HSP-TCC has classic brain MRI findings as detailed in this case

@CincyPedsNeuro

Pascual B, et al. "Ears of the Lynx" MRI Sign Is Associated with SPG11 and SPG15 Hereditary Spastic Paraplegia. AJNR 2019; 40 (1) 199-203

Cincinnati Children's

Siguiendo

Lorenzo Pinelli

@LorenzoPinelli Te sigue

adult and pediatric neuroradiologist, opinions are my own (whose else could it be? 😊)

Italia Fecha de nacimiento 1 de octubre de 1968 Se unió en enero de 2013

512 Siguiendo **1327** Seguidores

Lorenzo Pinelli @LorenzoPinelli · 25/7/21

Incidental craniopharyngeal canal 🔴 type 1 (and other findings) in “cri-du-chat” syndrome (5p- syndrome), must be distinguished from 🔵 spheno-occipital synchondrosis 🤓. Why “type 1”? Have a look at @CMGlastonbury and colleagues’ brilliant paper! ajnr.org/content/ajnr/3...