

Nádory CNS

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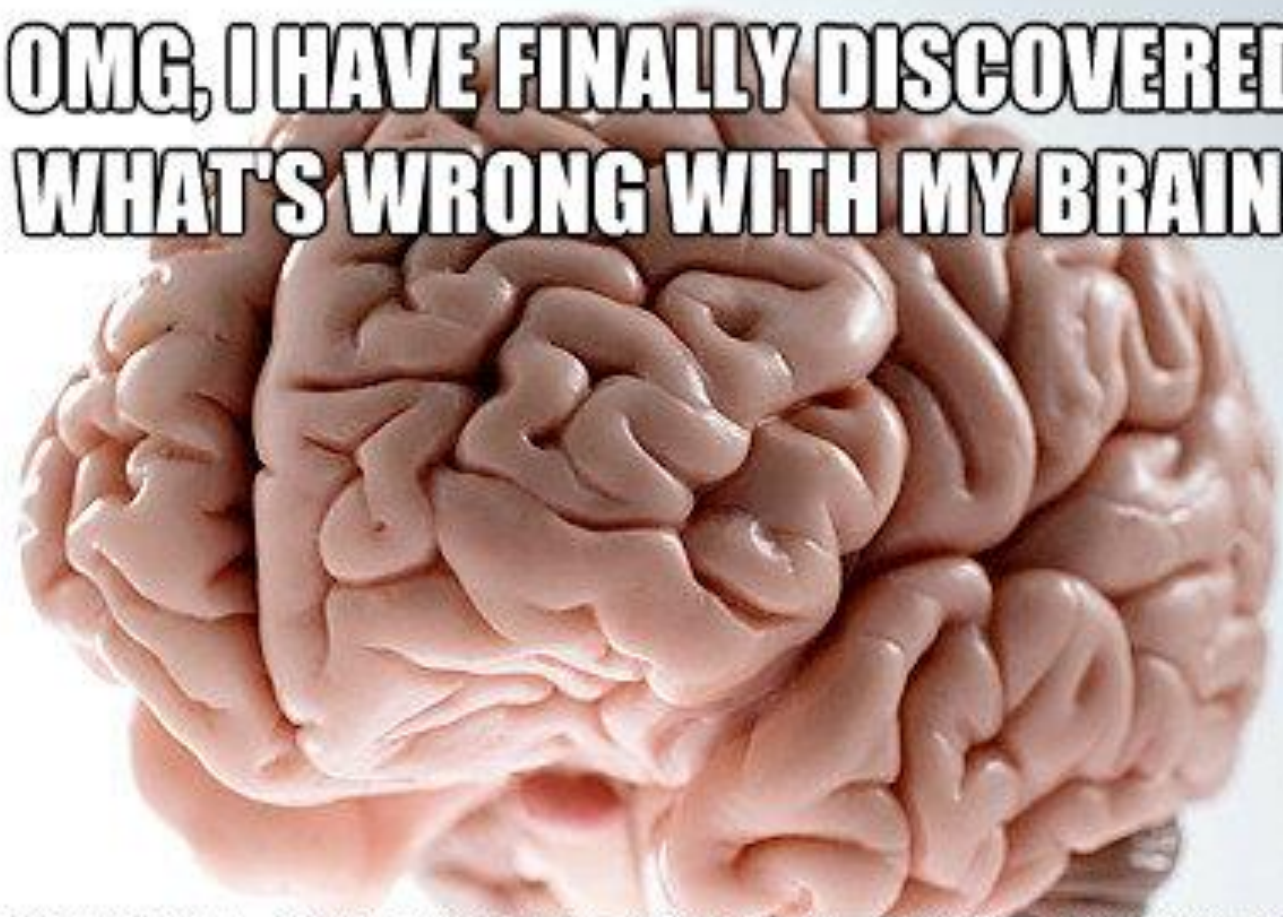
Klinika radiační onkologie
MOÚ

- epidemiologie – jak časté (incidence, prevalence, mortalita)
- etiologie – příčiny vzniku (faktory vnitřní, zevní)
- symptomatologie
- diagnostika
- klasifikace (TNM), histologie
- léčba – kurativní, adjuvantní, paliativní, neoadjuvantní
 - operace, radioterapie, chemoterapie, hormonoterapie, cílená léčba, imunoterapie, podpůrná léčba

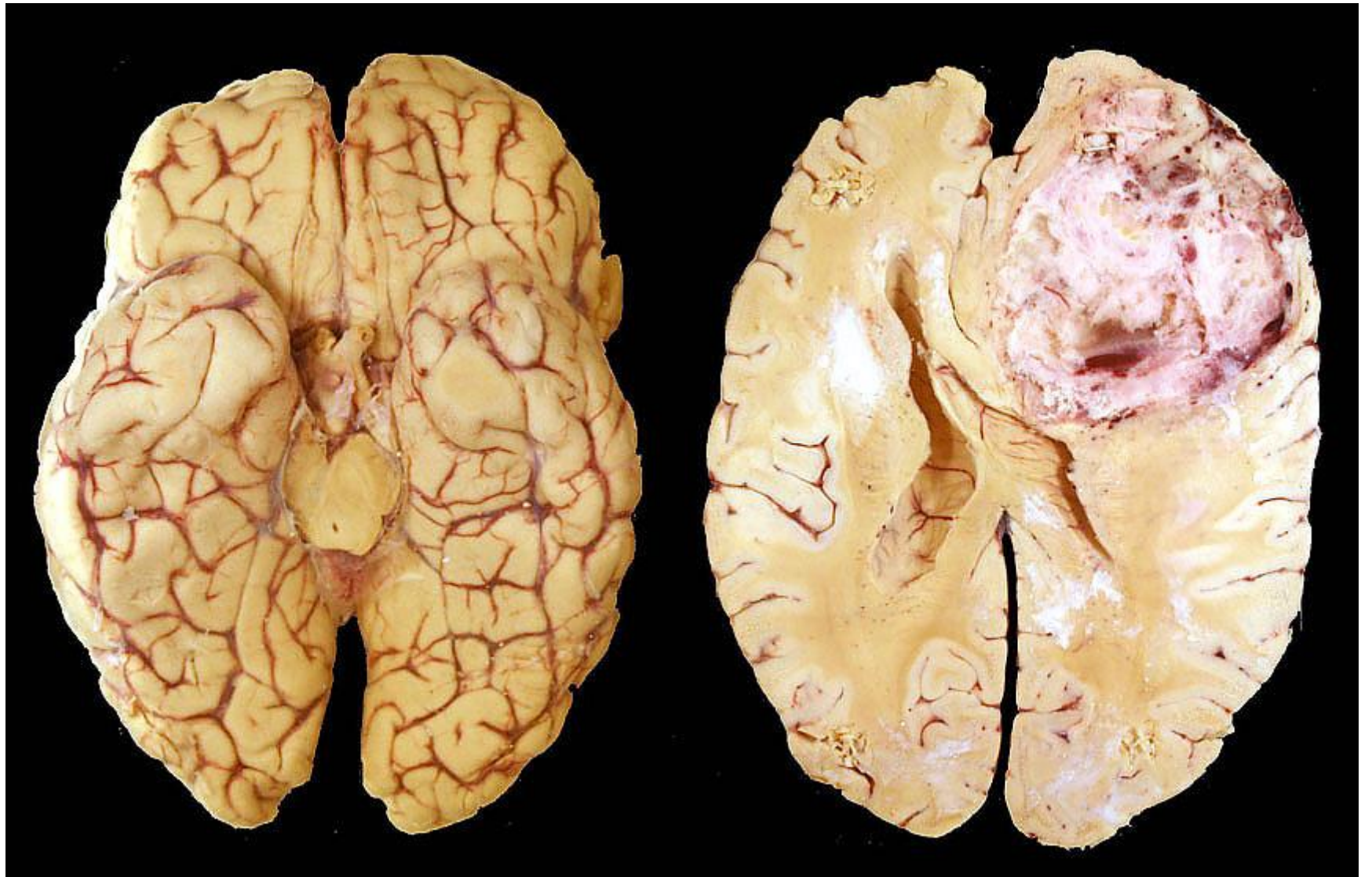
Nádory CNS

- primární vs. sekundární; benigní vs. maligní; děti vs. dospělí
- mozkové MTS až 10x častější (cca 30% všech onko pacientů)
- primární nádory mozku jsou relativně vzácné (ale u dětí nejčastější solidní nádory)
- etiologie neznámá (genetika, záření; Mobilní telefony – ne)
- epileptické záchvaty, bolesti hlavy, závratě, nevolnosti, ložiskové symptomy
- MRI, ± PET
- low grade (astrocytomy), high grade (nejzhoubnější glioblastom, medián přežití 14M)
- meduloblastomy, oligodendrogliomy
- meningeomy, adenomy hypofýzy
- maximální možnou resekce (navigace, peroperační stimulace, operační mikroskop)
- pooperační léčba – chemoterapie a radioterapie
- paliativní léčba recidiv

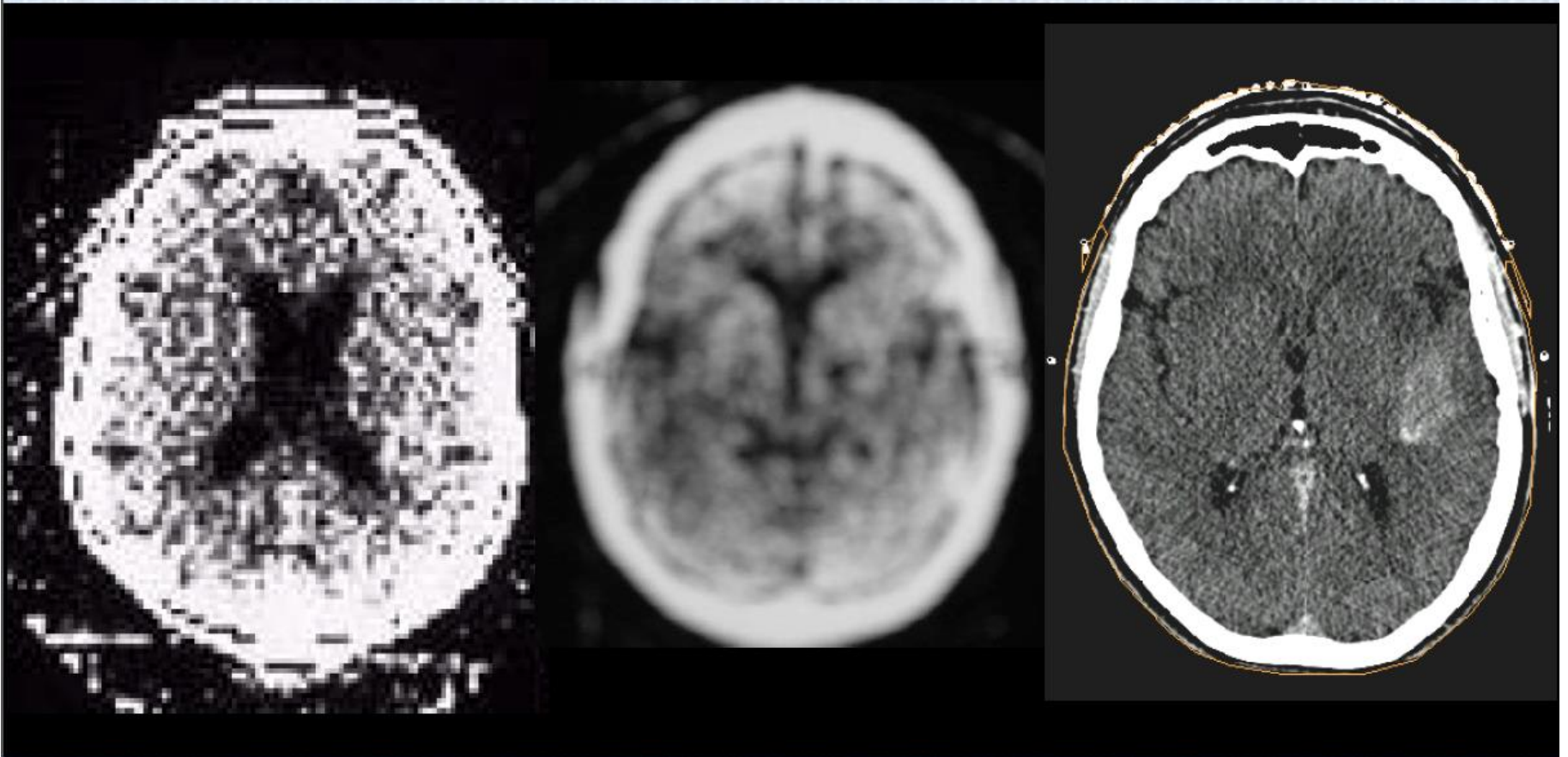
**OMG, I HAVE FINALLY DISCOVERED
WHAT'S WRONG WITH MY BRAIN:**



**ON THE LEFT SIDE, THERE'S NOTHING RIGHT, AND
ON THE RIGHT SIDE, THERE'S NOTHING LEFT**



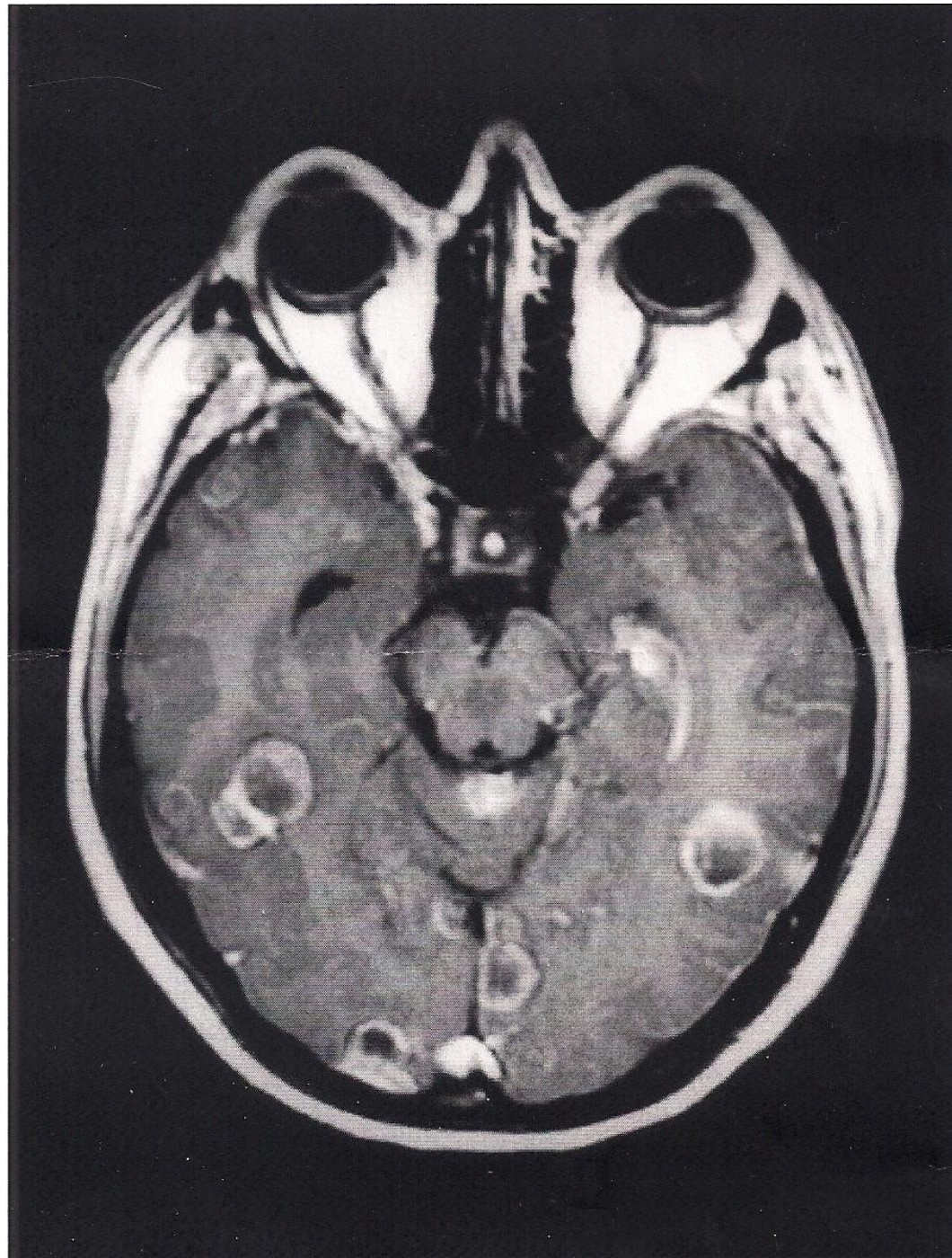
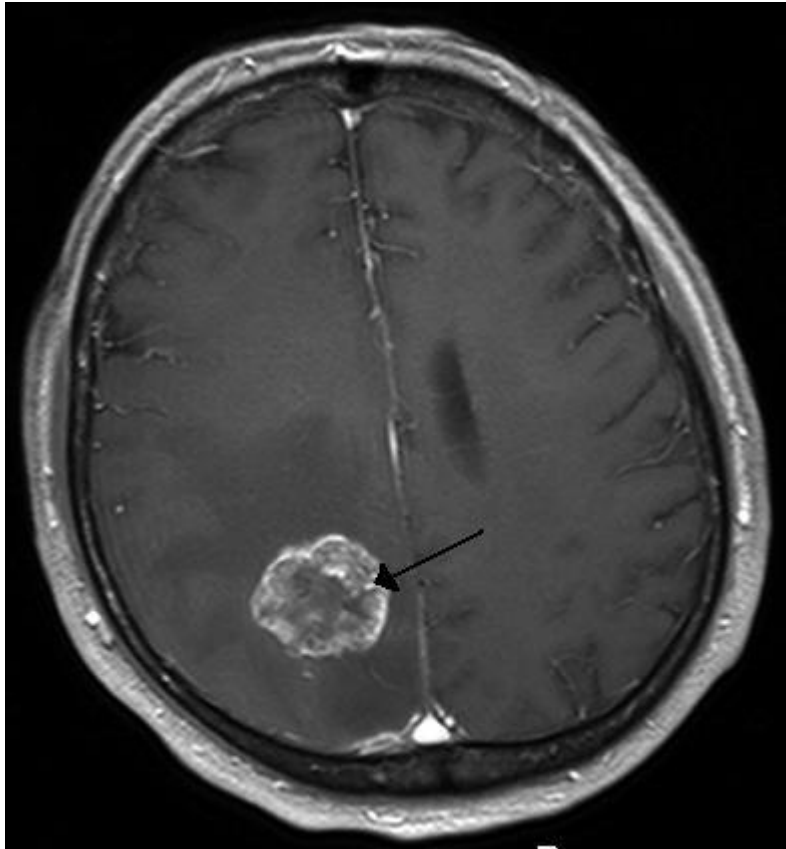
Technology advance

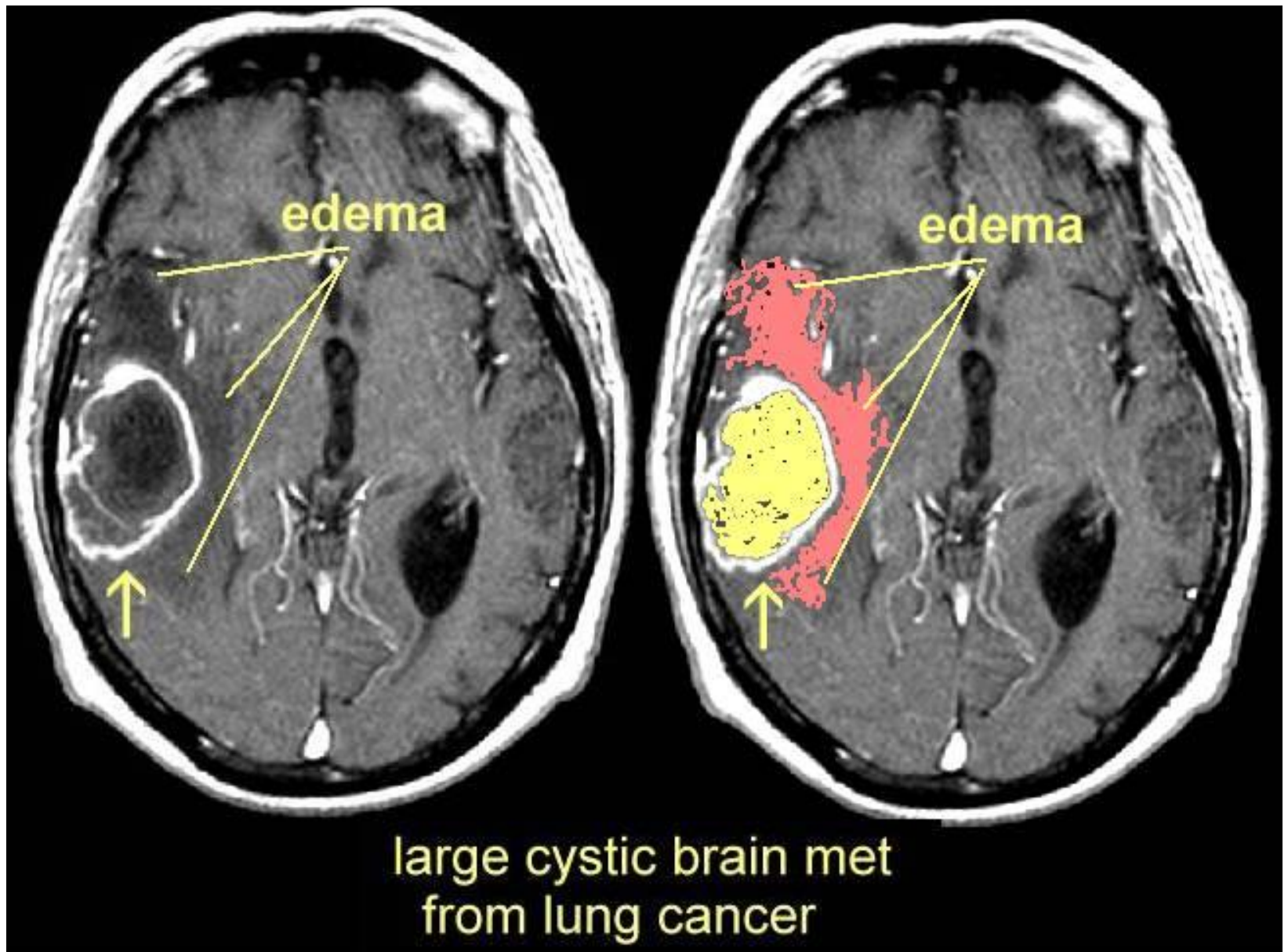


Late 1970s

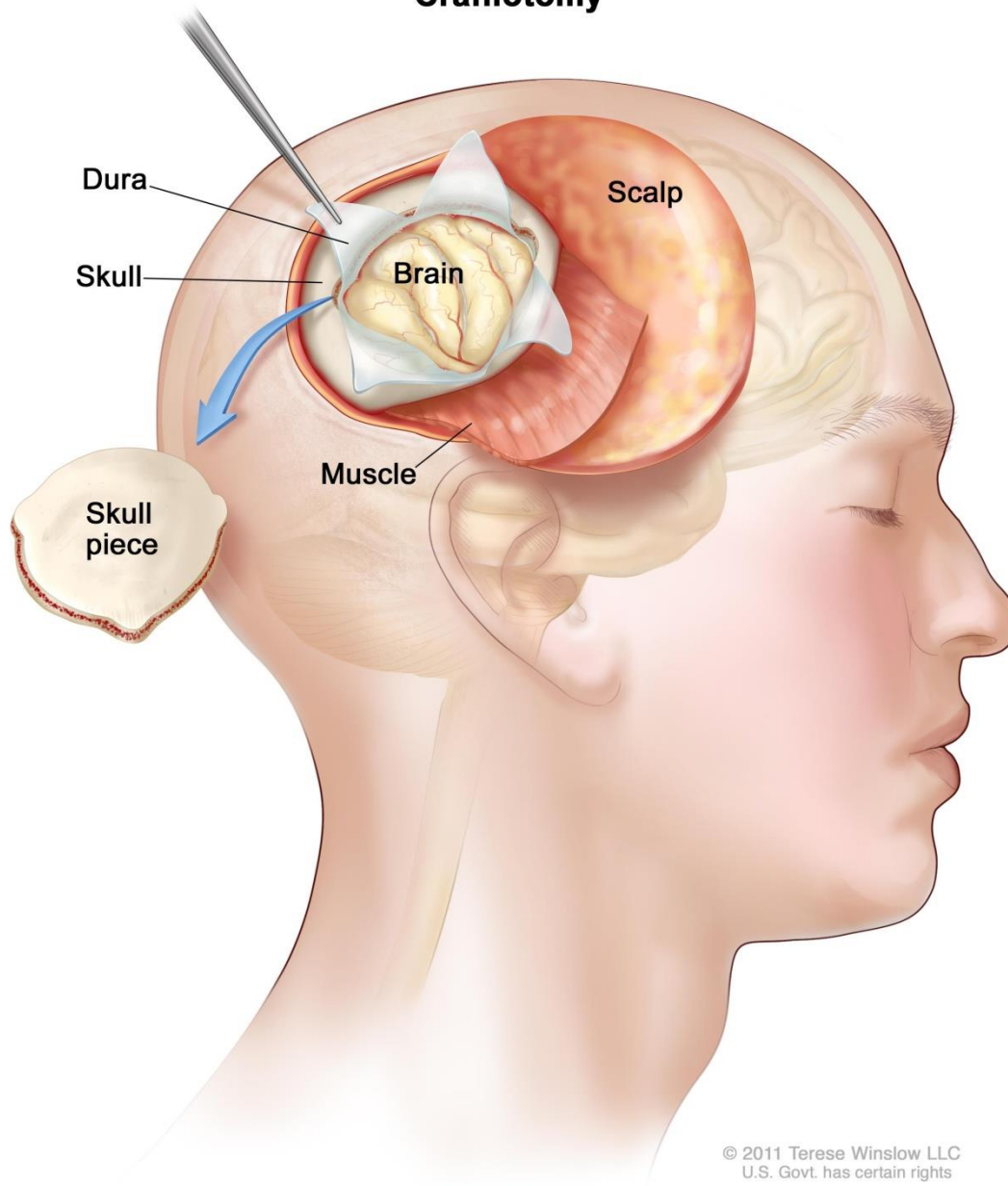
1980s

2003

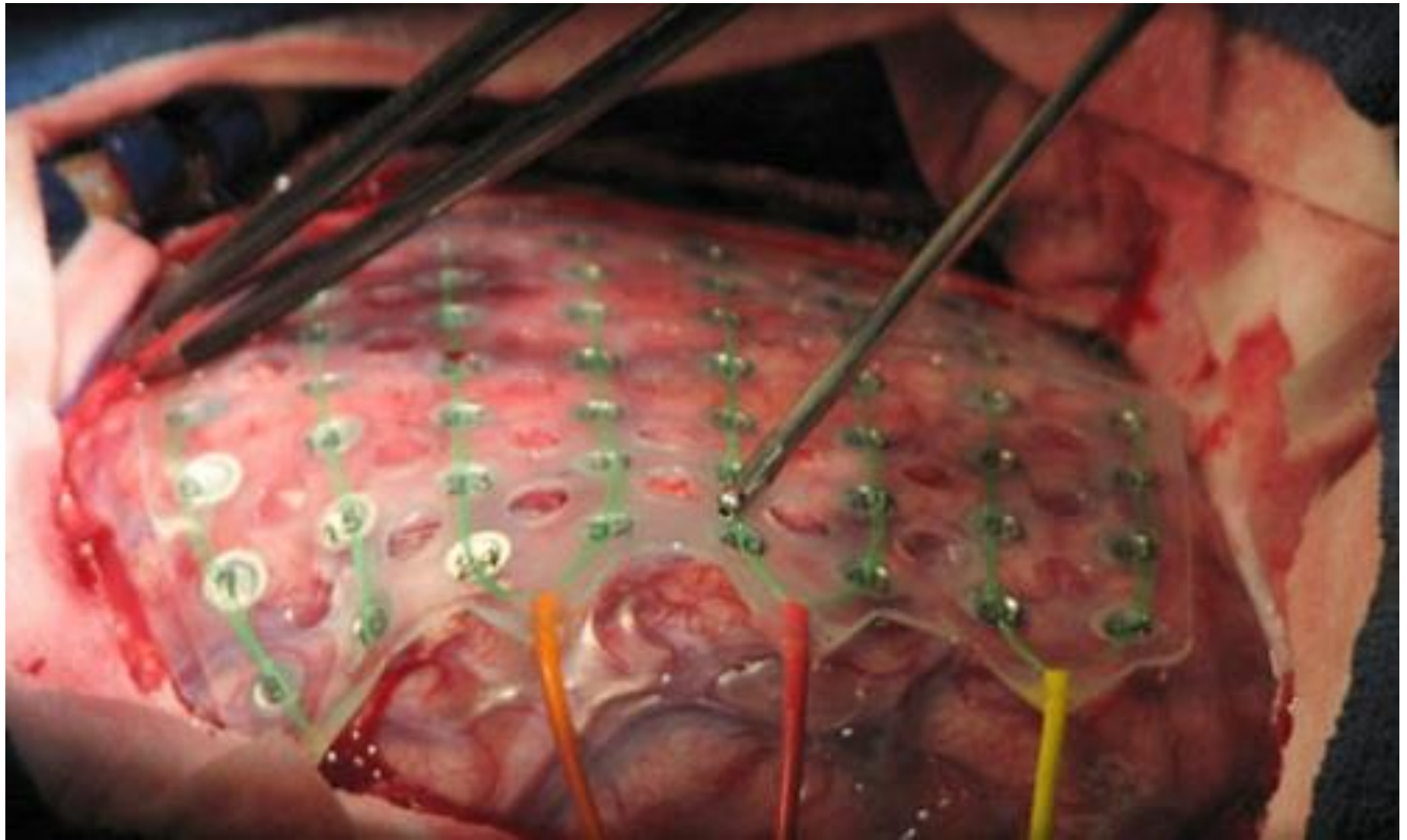




Craniotomy







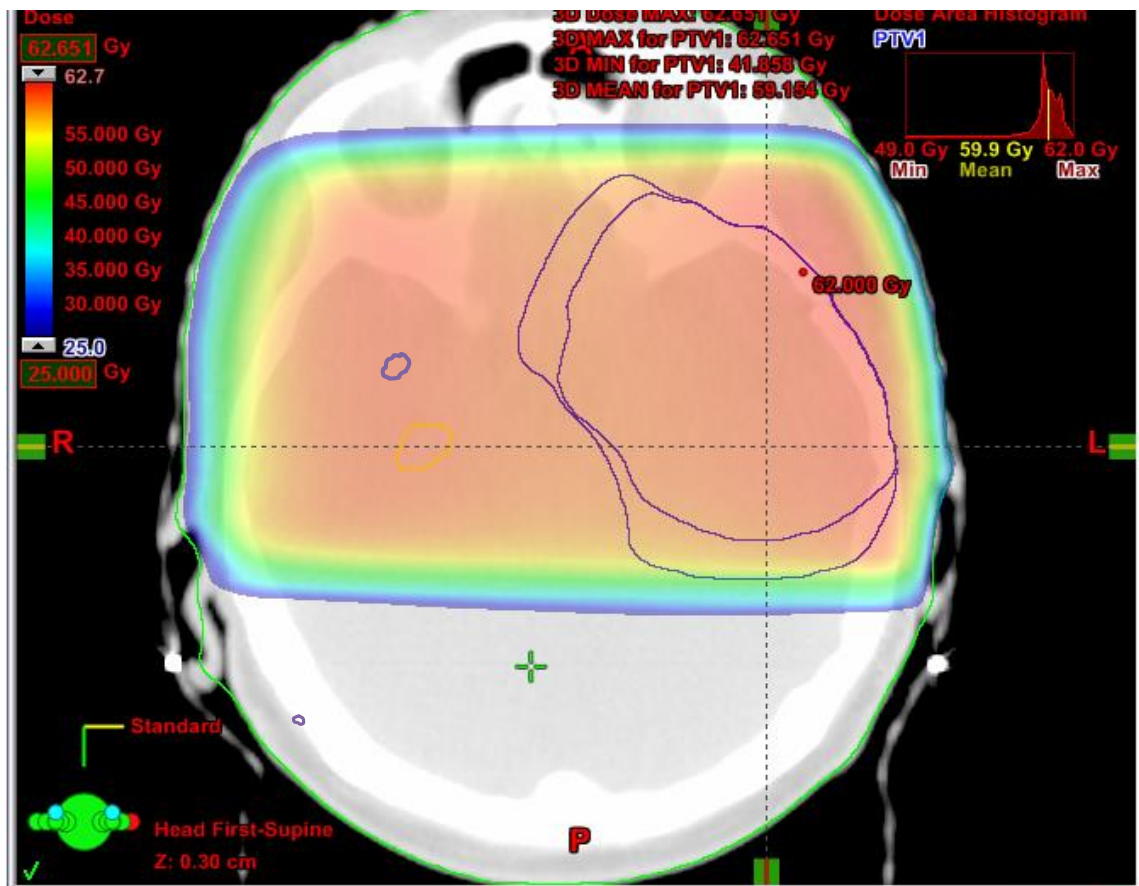






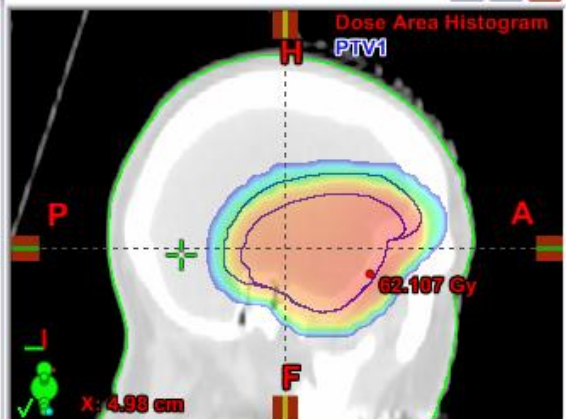
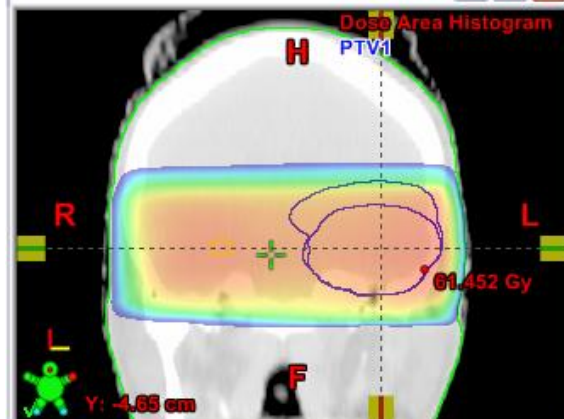
CAUTION
CARBON FIBRE COUCH
MAXIMUM SAFE WORKING LOADS
Exceeding maximum safe working load may result in
Equipment Damage. Consult operators manual for
specific load values not listed below

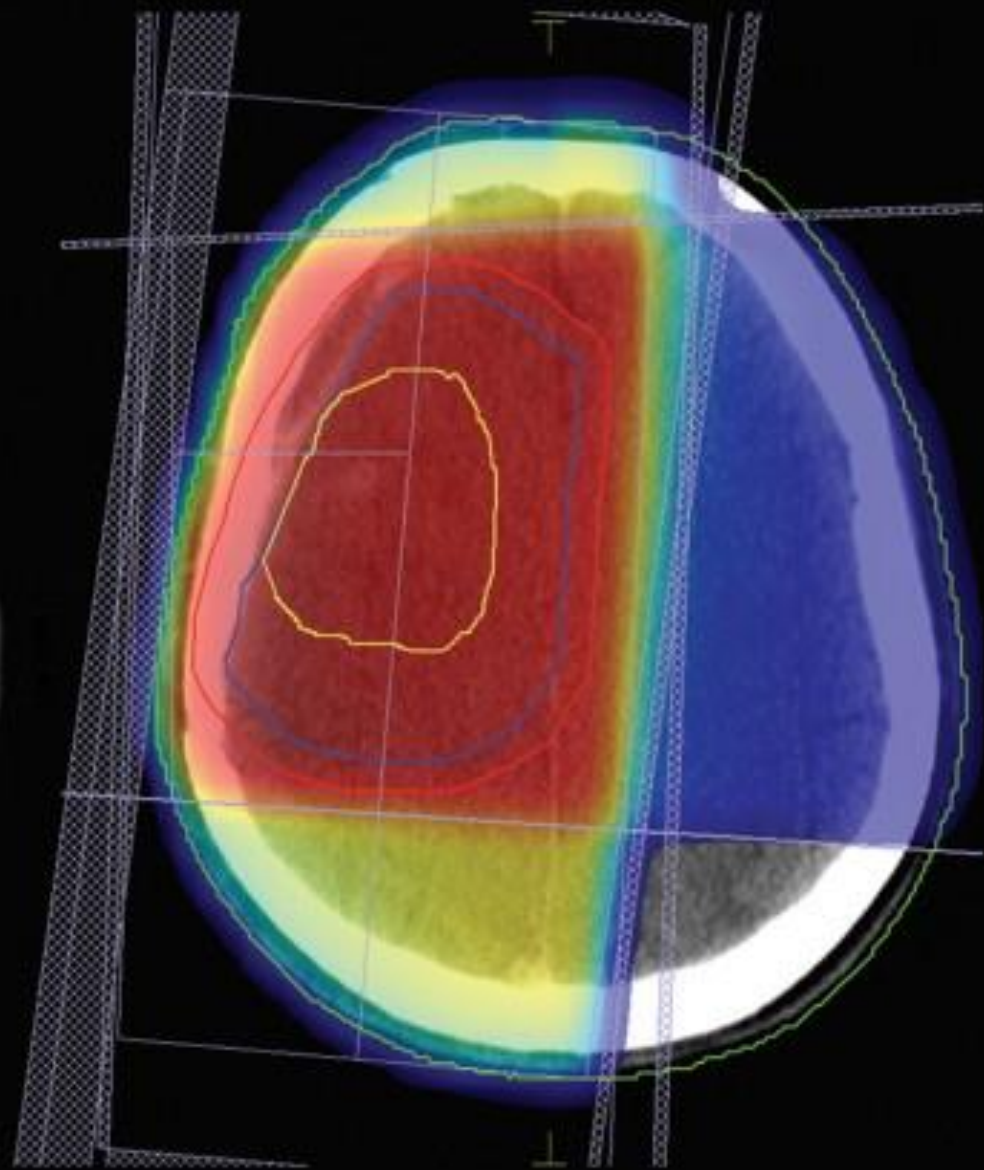
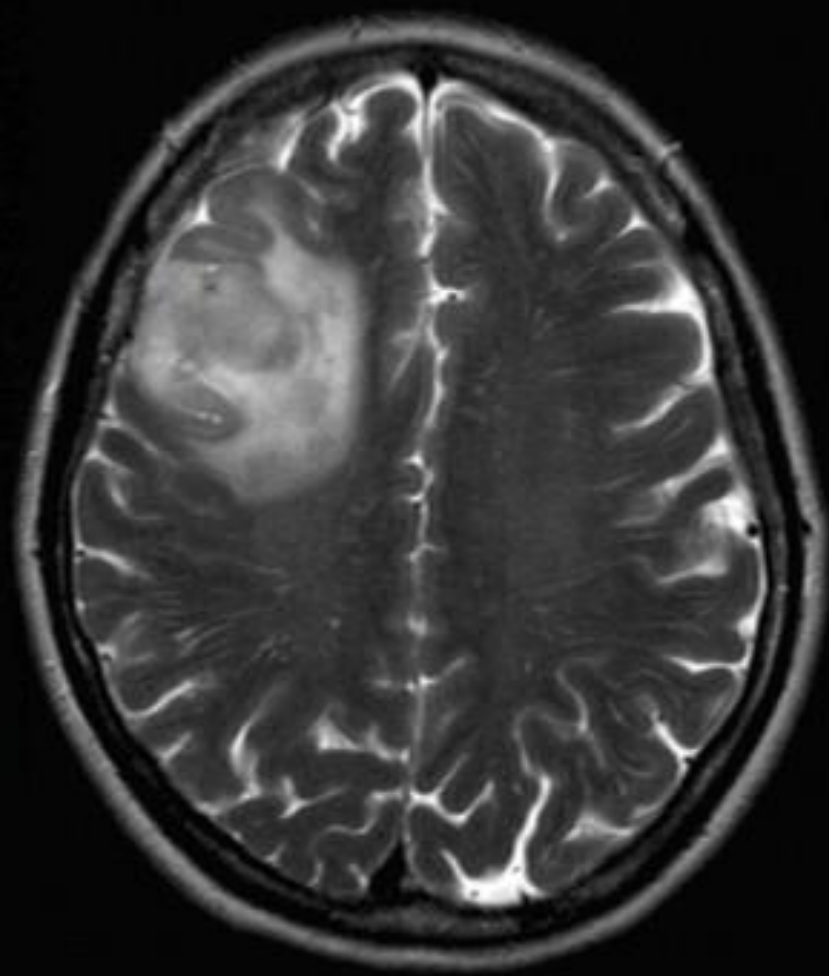
Couch Top	200kg (440lb)
Arms	50kg (110lb)
Foot Panel	50kg (110lb)

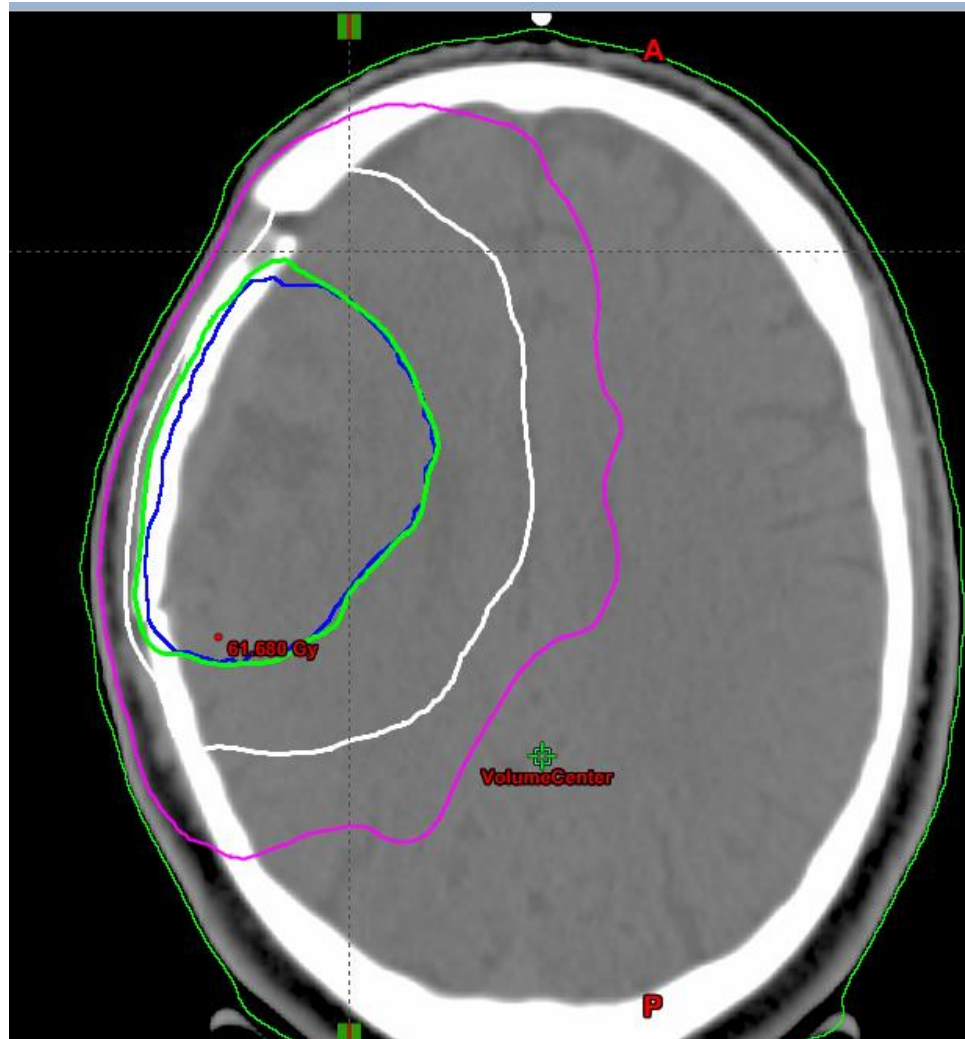


PlanSum POKUS 3D - Frontal - CT_...

PlanSum POKUS 3D - Sagittal - CT_...

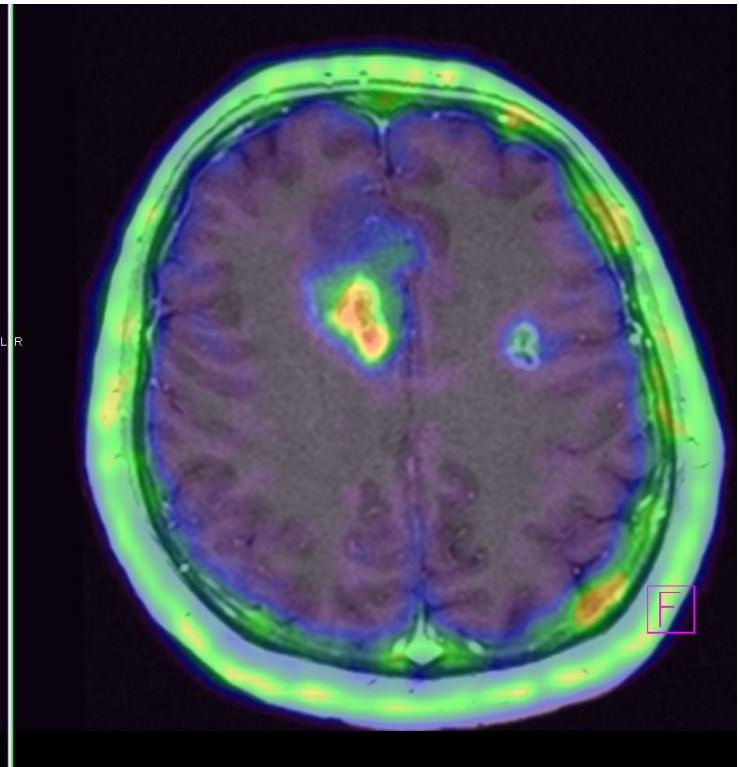
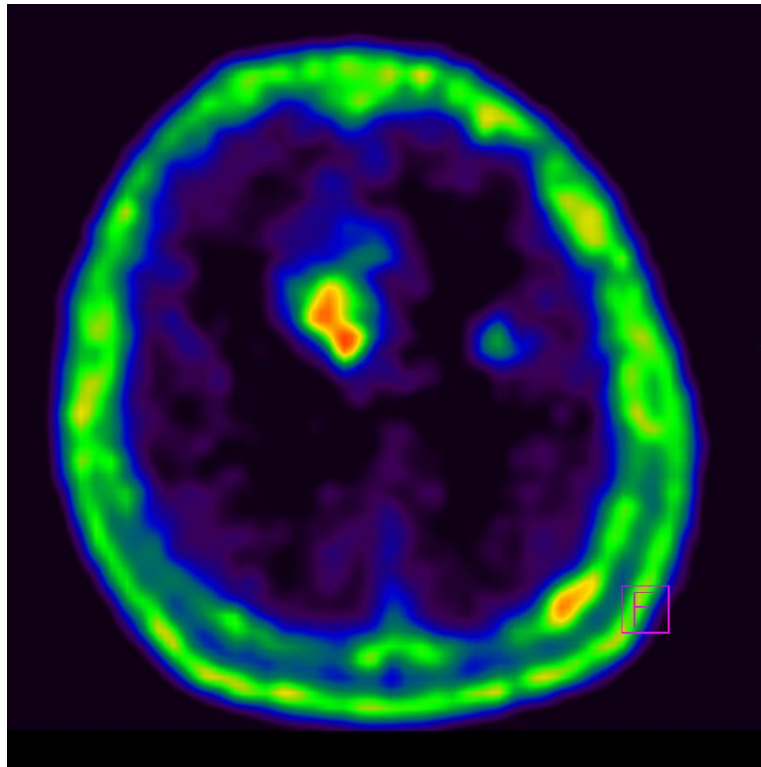
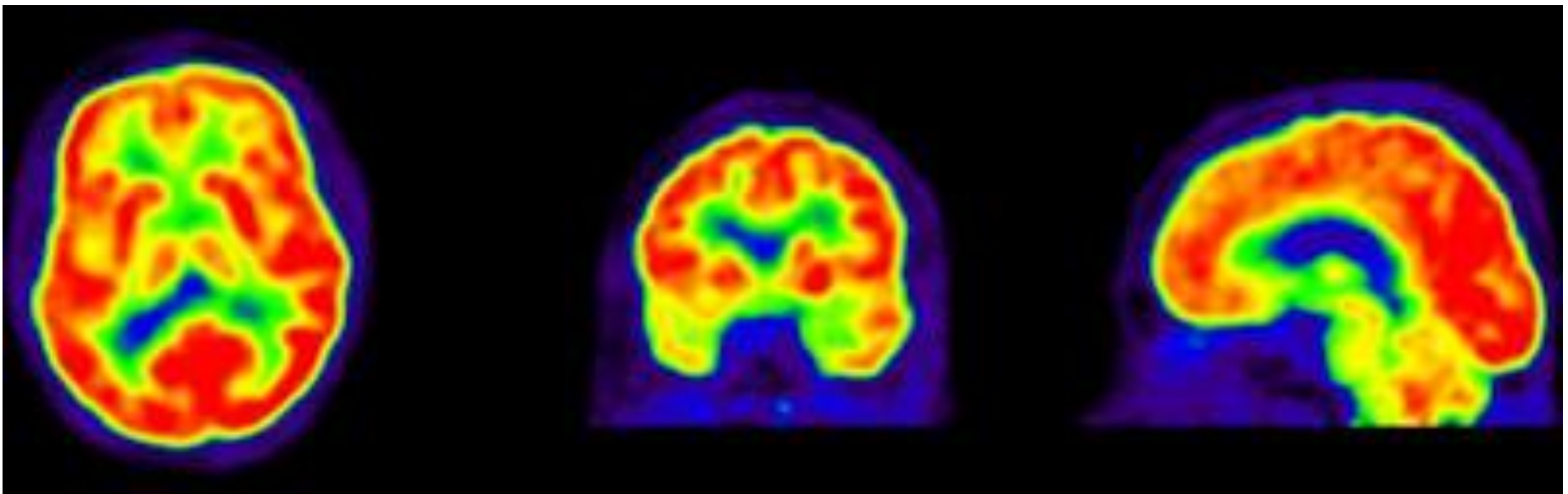


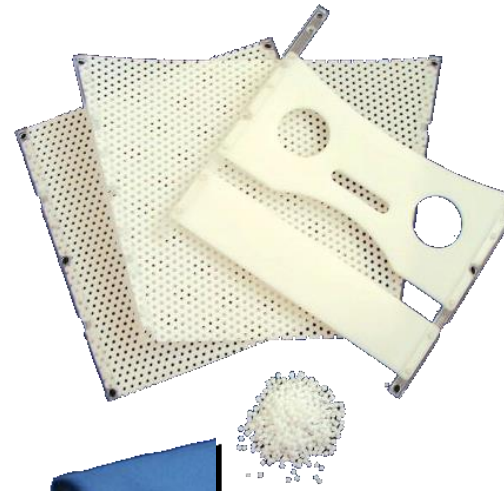


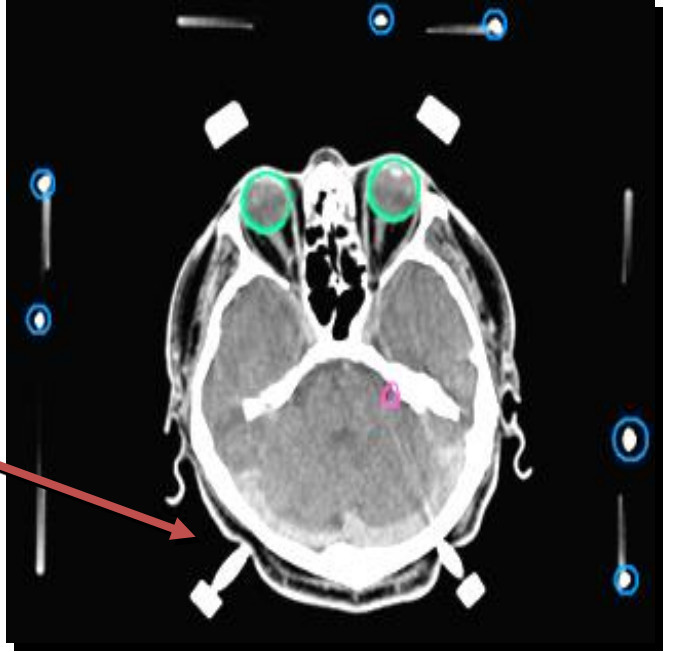


MODRÁ – cílový objem

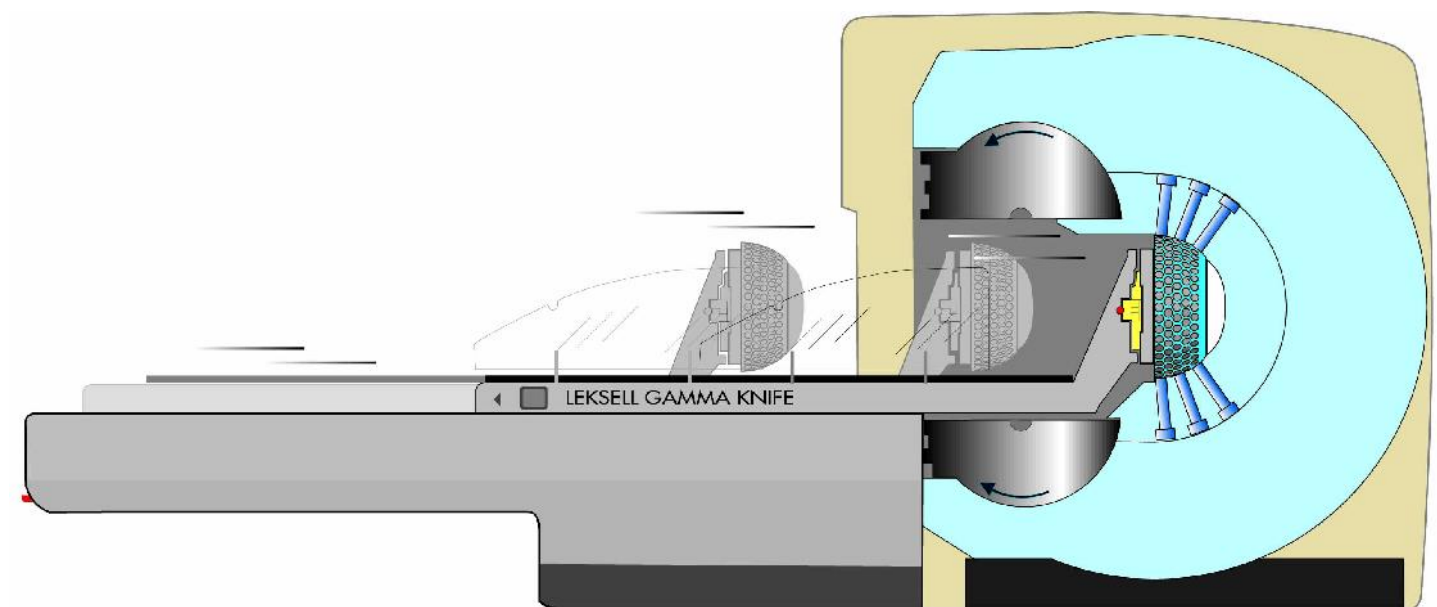
ZELENÁ – 95% izodoza (oblast kde je požadovaná dávka)



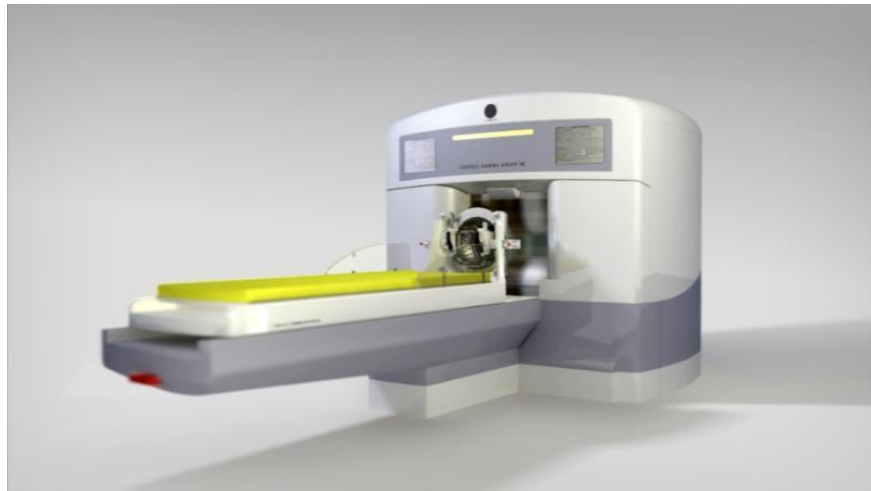




Gamma knife

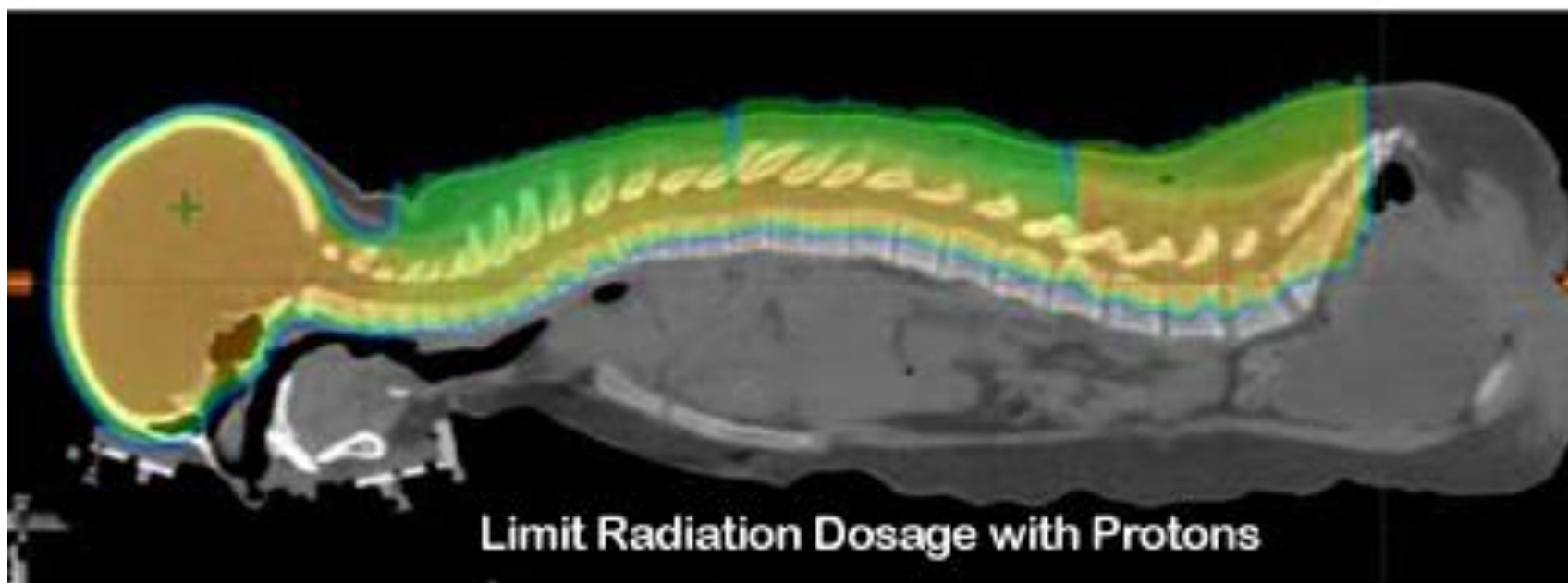
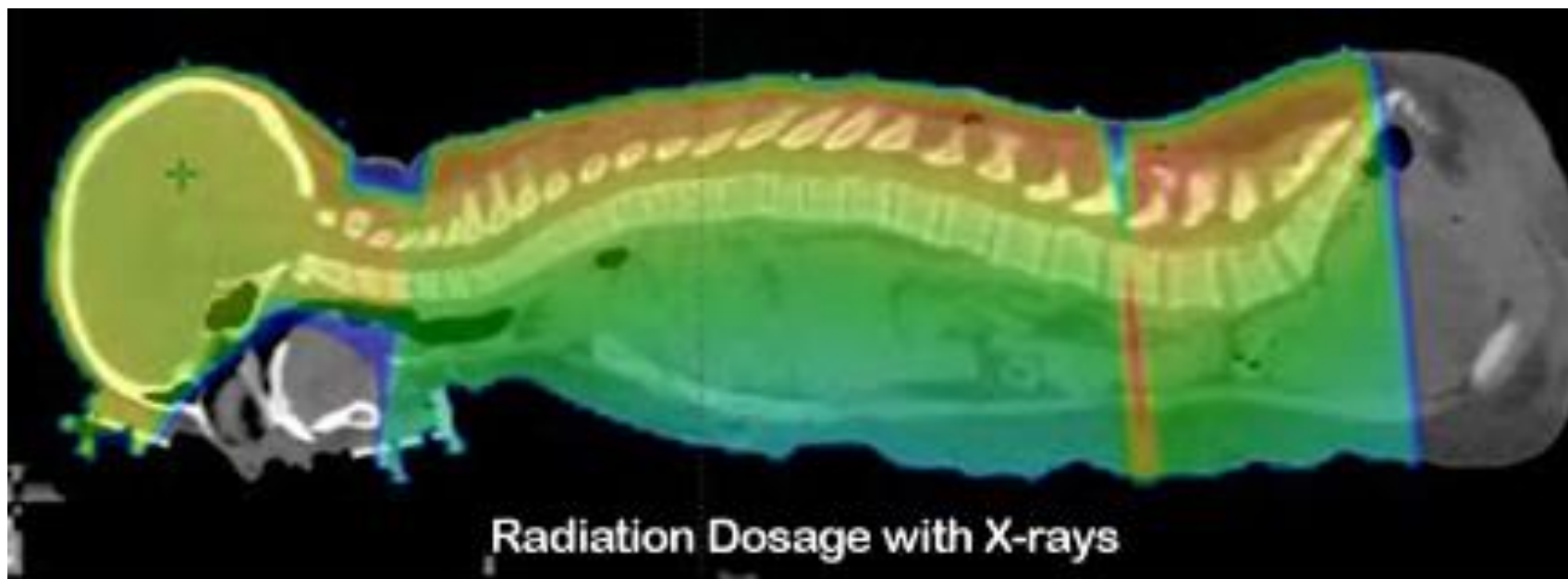


Leksell's gama-knife

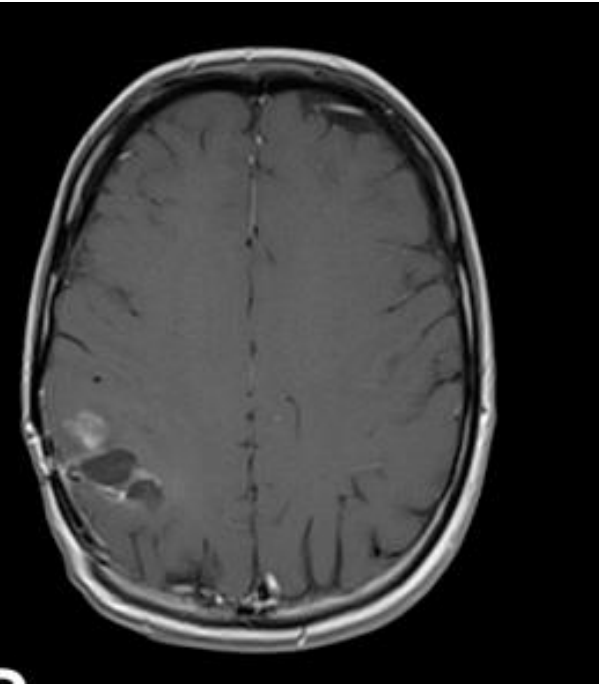


Cyber-knife

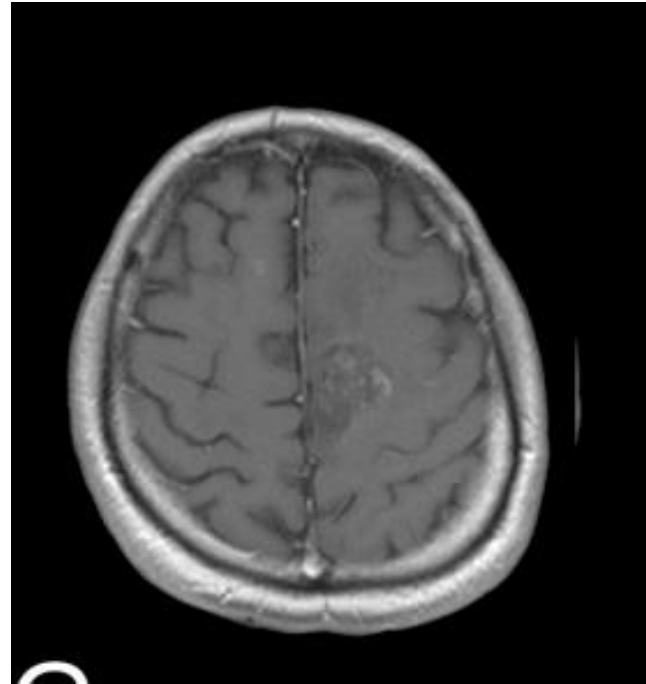




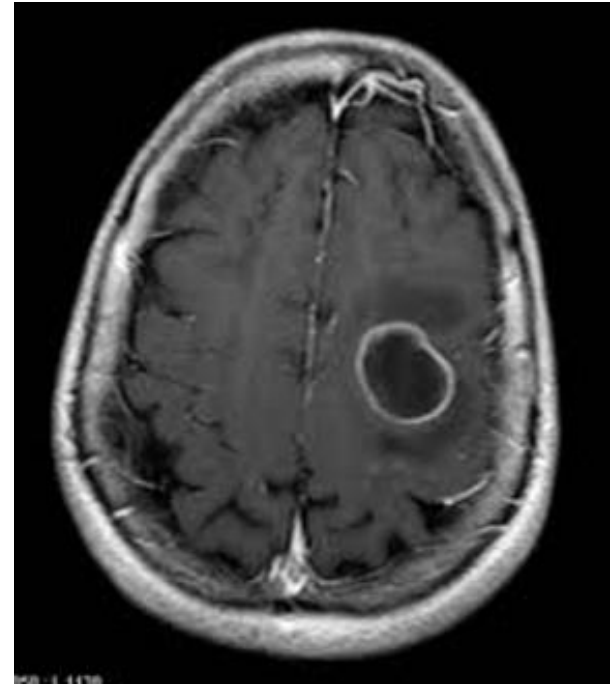




Pseudoprogrese

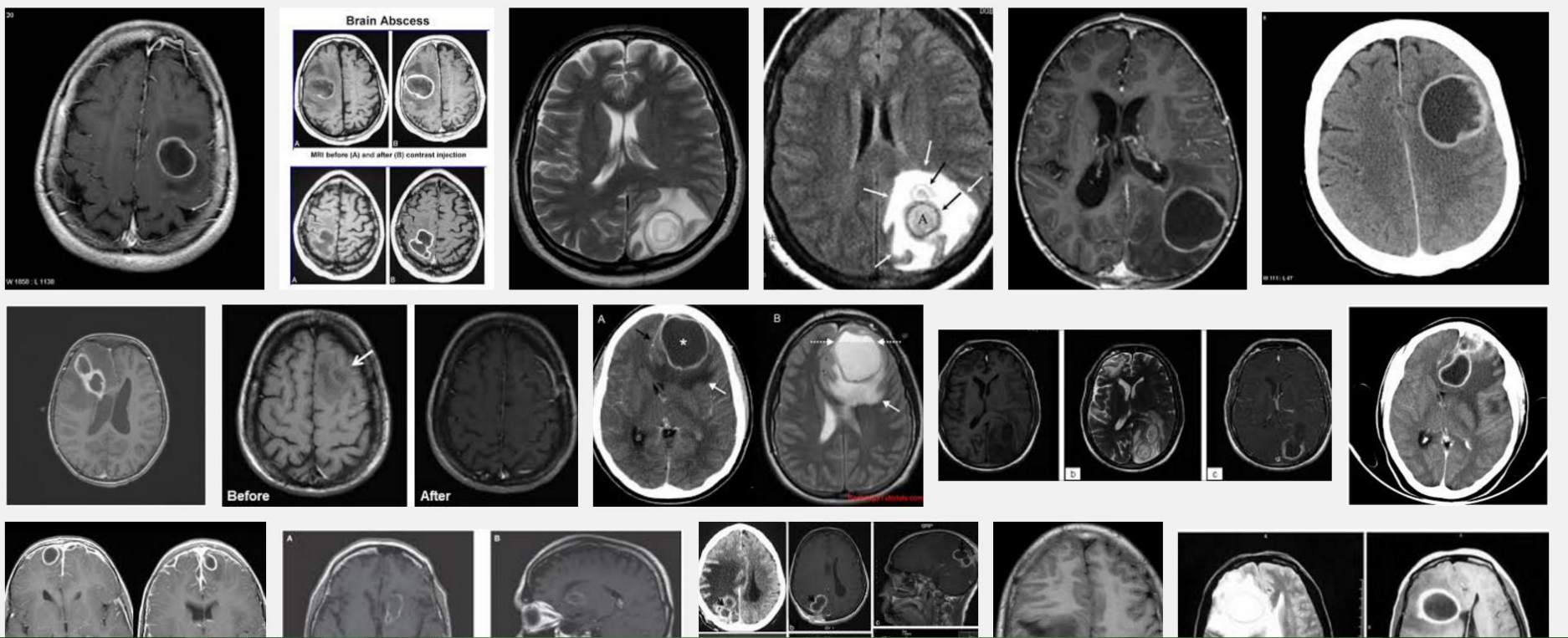


Recidiva

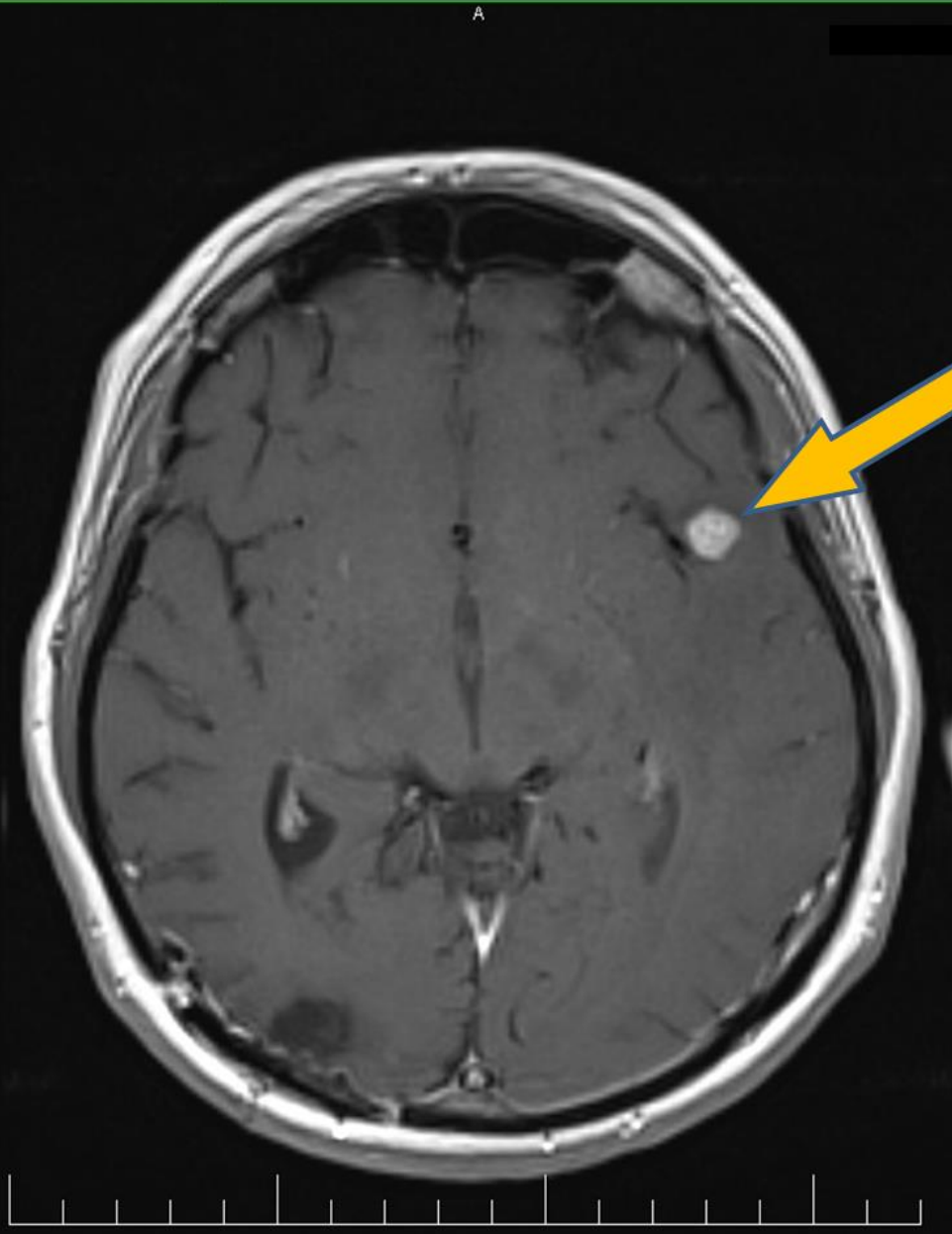


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Internet **Obrázky** Vídea Zprávy Nákupy Více ▾ Vyhledávací nástroje Bepečné vyhledávání

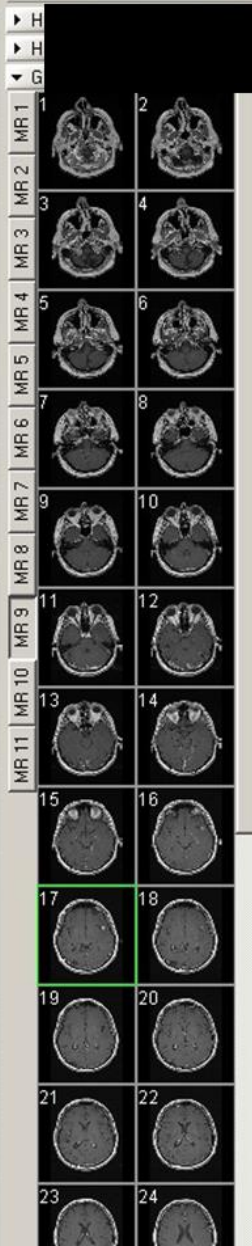


MR/9/17
Axial
t1_se_TRA_3mm_MTC
20 ml MAGNEVIST



MOU BRNO

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1957/12/7
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RDG2012039423
2012/6/10
08:11:17



ET: 1
TR: 692.0
TE: 16.0
Pixel size: 0.938 mm



Selection Registration Contouring Field Setup Plan Evaluation

Fields Dose Prescription Field Alignments Plan Objectives Optimization Objectives Dose Statistics Calculation Models Plan Sum

Group	Field ID	Technique	Machine/Energy	MLC	Field Weight	Scale	Gantry Rtn [deg]	Coll Rtn [deg]	Couch Rtn [deg]	Wedge	Field X [cm]	X1 [cm]	X2 [cm]	Field Y [cm]	Y1 [cm]	Y2 [cm]	X [cm]	Y [cm]	Z [cm]	SSD [cm]	MU	Ret. D [Gy]
<input checked="" type="checkbox"/>	VMAT_1	ARC-I	Clinac_iX_LU1 - 6X	Dose Dyn. Arc	0.72	Varian IEC	179.0	30.0	0.0	None	17.8	+9.4	+8.4	16.1	+9.0	+7.0	0.0	-5.0	3.0	91.3	296	
<input checked="" type="checkbox"/>	VMAT_2	ARC-I	Clinac_iX_LU1 - 6X	Dose Dyn. Arc	0.72	Varian IEC	181.0	330.0	0.0	None	17.8	+8.4	+9.4	16.1	+9.0	+7.0	0.0	-5.0	3.0	91.3	292	
<input checked="" type="checkbox"/>	SETUP_0	STATIC-I	Clinac_iX_LU1 - 6X		0.00	Varian IEC	0.0	0.0	0.0	None	15.0	+7.5	+7.5	15.0	+7.5	+7.5	0.0	-5.0	3.0	89.9		
<input checked="" type="checkbox"/>	SETUP_270	STATIC-I	Clinac_iX_LU1 - 6X		0.00	Varian IEC	270.0	0.0	0.0	None	15.0	+7.5	+7.5	15.0	+7.5	+7.5	0.0	-5.0	3.0	91.7		

MR/10/17
Axial
t1_se_TRA_3mm_MTC
20 ml MAGNEVIST

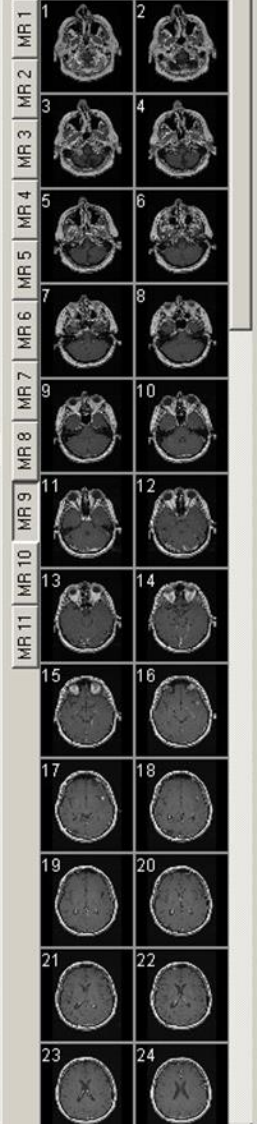
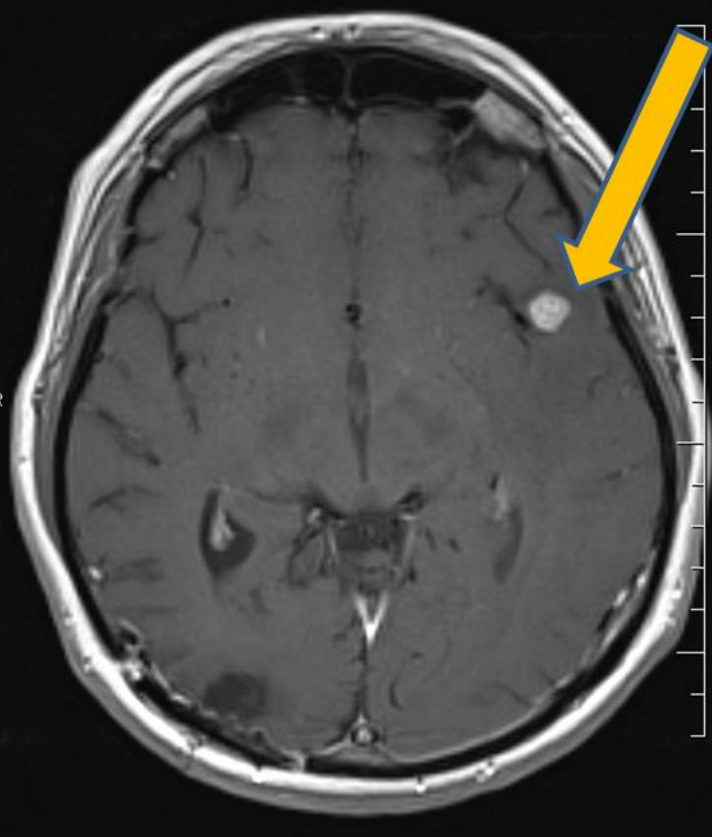
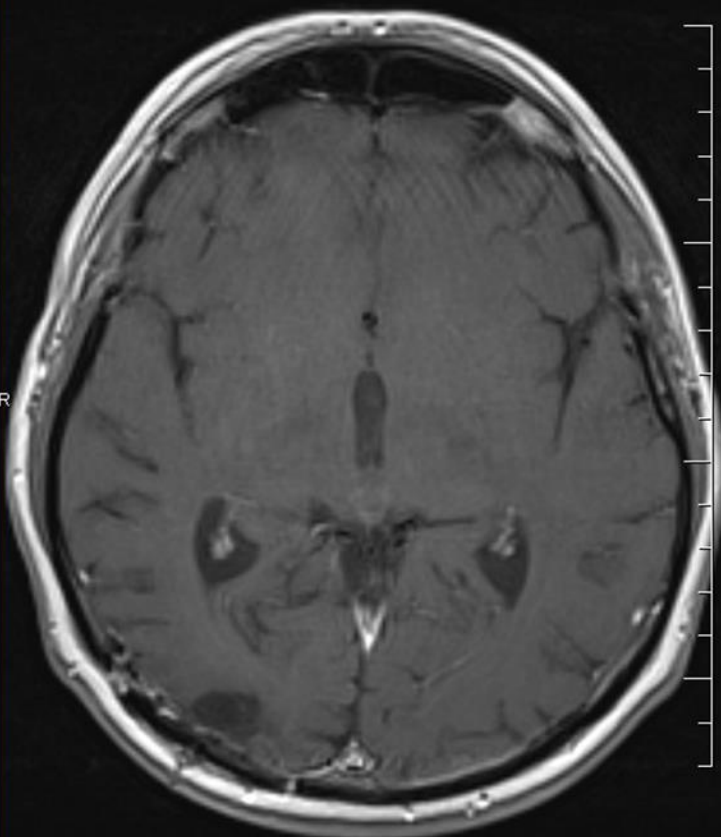
MR/9/17
Axial
t1_se_TRA_3mm_MTC
20 ml MAGNEVIST

MR/9/17
Axial
t1_se_TRA_3mm_MTC
20 ml MAGNEVIST

571207/2080
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571207/2080
1957/1/27
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2012/6/10
08:11:17



ET: 1
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Pixel size: 0.898 mm
Position: -58.1 mm

ET: 1
TR: 692.0
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Position: 3.4 mm