

Radiochirurgia stereotassica (SRS) versus radioterapia panencefalica (WBRT) nel tumore del polmone (NSCLC): analisi di una casistica monoistituzionale



20-40% dei pazienti affetti da una neoplasia sviluppano secondarismi encefalici (incidenza 4 volte superiore ai tumori primitivi).¹

Di questi circa il 10% dei pazienti si presentano con **mts singole** ²

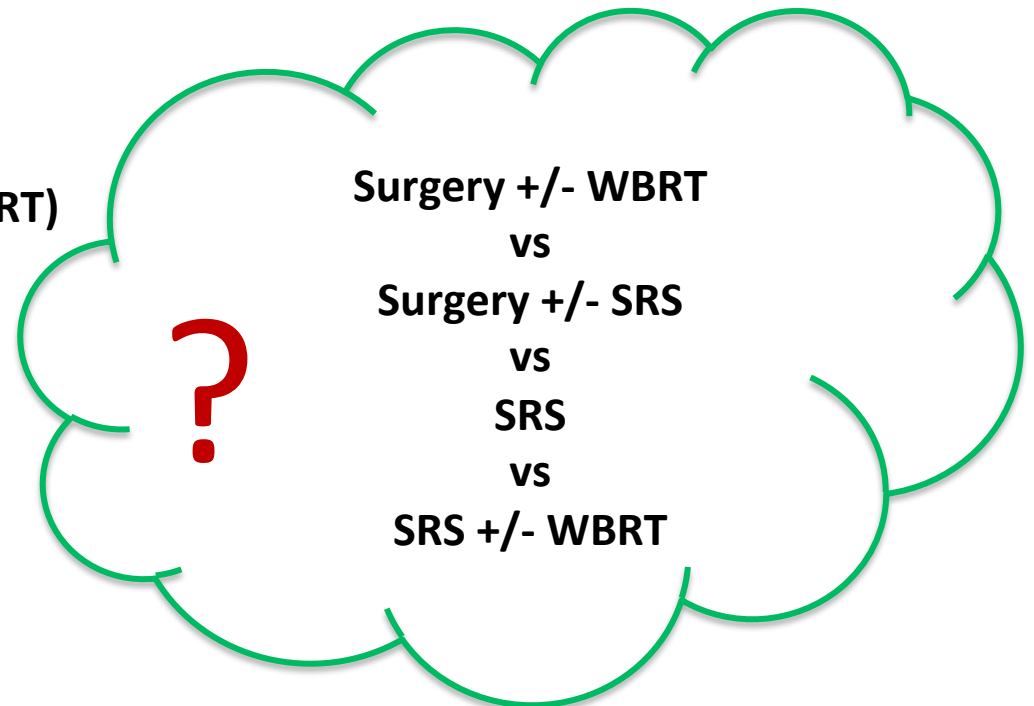


OPZIONI di TRATTAMENTO

→ **CHIRURGIA**

→ **RADIOTERAPIA STEREOTASSICA (SRS)**

→ **RADIOTERAPIA PANENCEFALICA (WBRT)**



¹ Soffietti et al Eur J Neurol, 2006

² Linee Guida AIOM 2012



Systematic review

Treatment of brain metastases: Review of phase III randomized controlled trials

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Paziente oligometastatico (1-3 mts):

→SRS/Surgery + WBRT:

 aumento LC;

 aumento OS nei pz con mts singola.

→Non c'è evidenza di superiorità della combinazione SRS+WBRT vs Surgery+WBRT

→No trial randomizzati che confrontino Surgery vs. SRS

→No trial randomizzati che confrontino SRS vs. WBRT

Radiosurgery, Whole-Brain Radiotherapy, or Both for Patients Presenting with a Limited Number of Brain Metastases



Luglio 2014

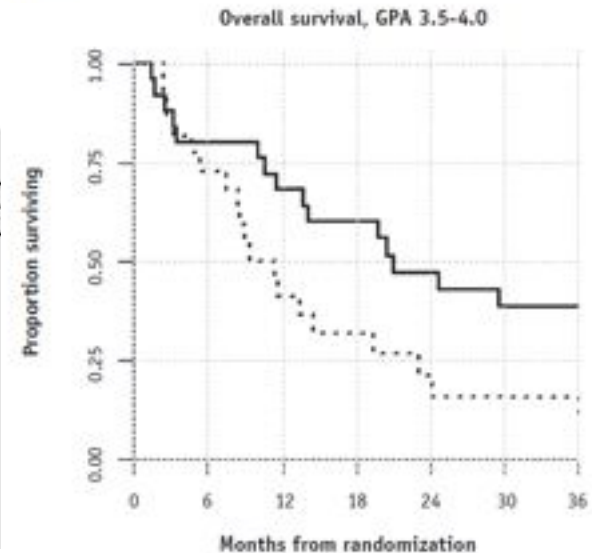
Secondary Analysis of RTOG 9508, a Phase 3 Randomized Trial of Whole-Brain Radiation Therapy Versus WBRT Plus Stereotactic Radiosurgery in Patients With 1-3 Brain Metastases; Poststratified by the Graded Prognostic Assessment (GPA)

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Table 1 GPA worksheet to estimate survival from brain metastases by diagnosis

Diagnosis	Prognostic factor	GPA Scoring Criteria	
Non-small cell and small cell lung cancer		0	0.5
	Age	>60	50-60
	KPS	<70	70-80
	ECM	Present	-
	No. of BM	>3	2-3

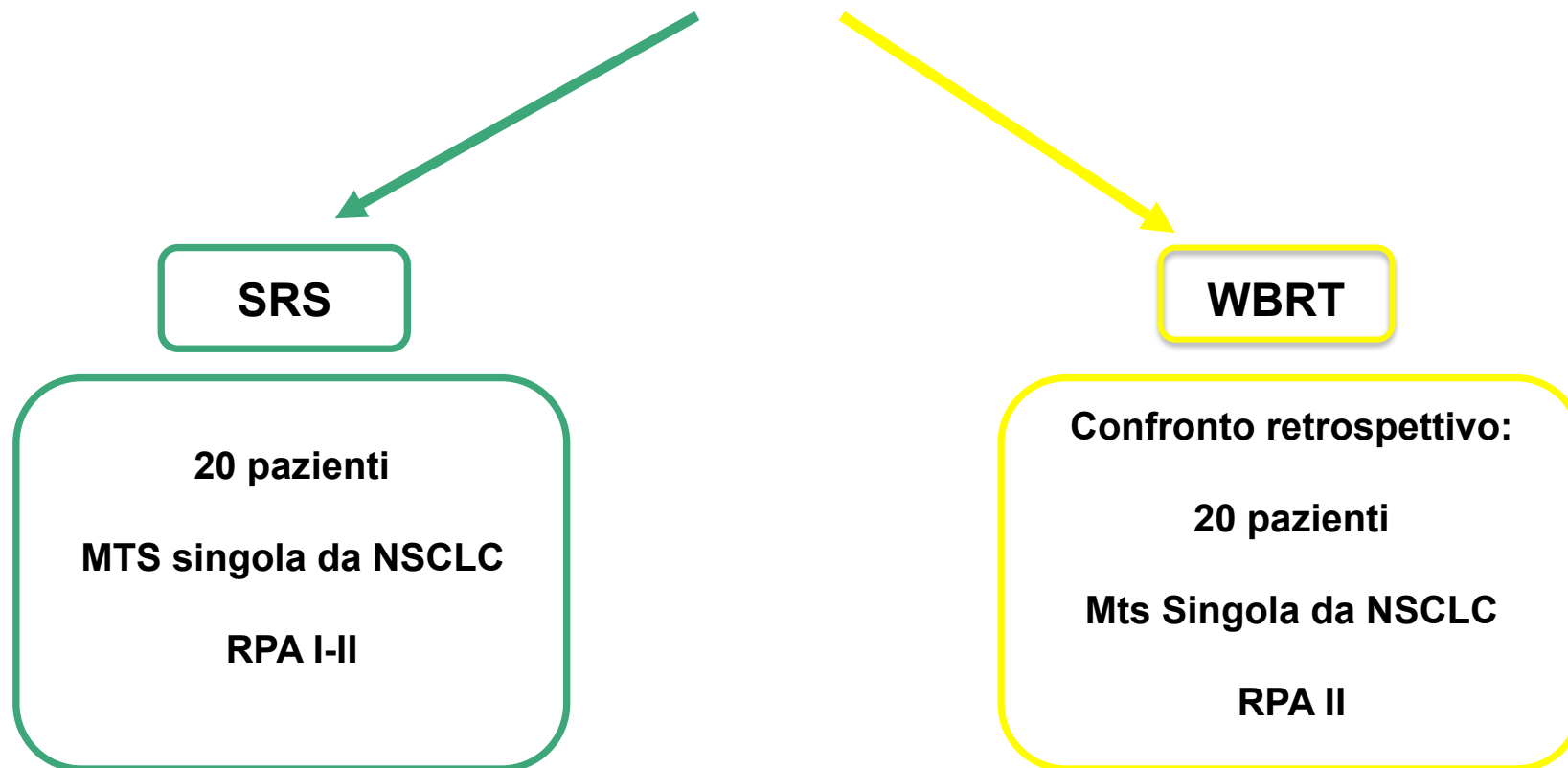
MST (mo) by GPA: 0-1.0 = 3.0, 1.5-2.0 = 5.5, 2.5-3.0 = 9.4, 3.5-4.0 = 14.8



Conclusions: This secondary analysis of predominantly lung cancer patients, consistent with the original analysis, shows no survival advantage for the group overall when treated with WBRT and SRS; however, in patients with high GPA (3.5-4), there is a survival advantage regardless of whether they have 1, 2, or 3 BM. This benefit did not extend to patients with lower GPA. Prospective validation of this survival benefit for patients with multiple BM and high GPA when treated with WBRT and SRS is warranted. © 2014 Elsevier Inc.

VALUTAZIONE del CONTROLLO LOCALE

In pazienti con metastasi singola da NSCLC



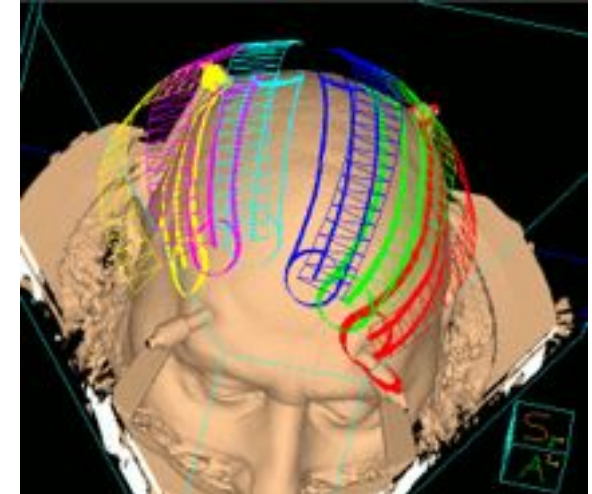
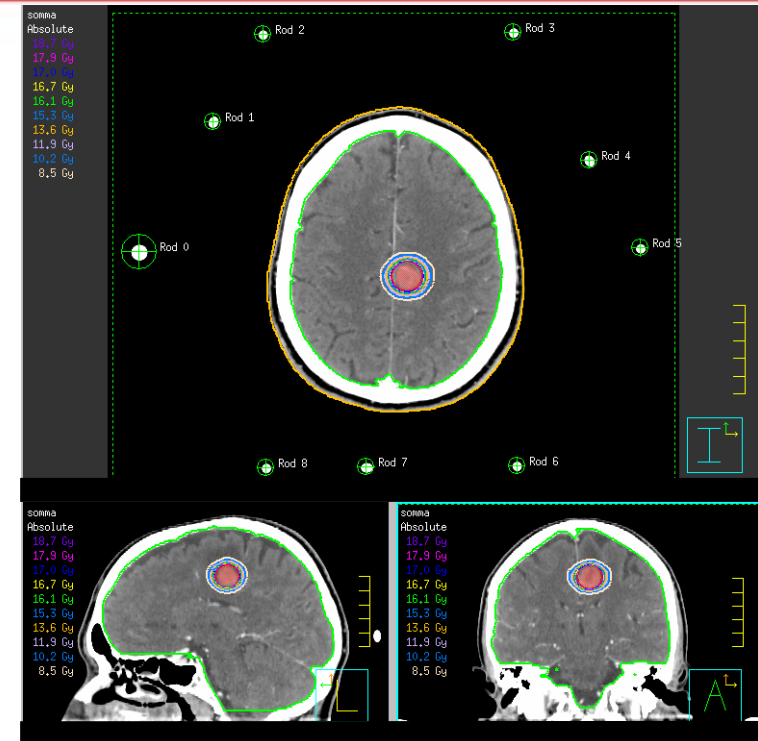
SRS:

Casco stereotassico

GTV delineato su TC con mdc

Dosi:

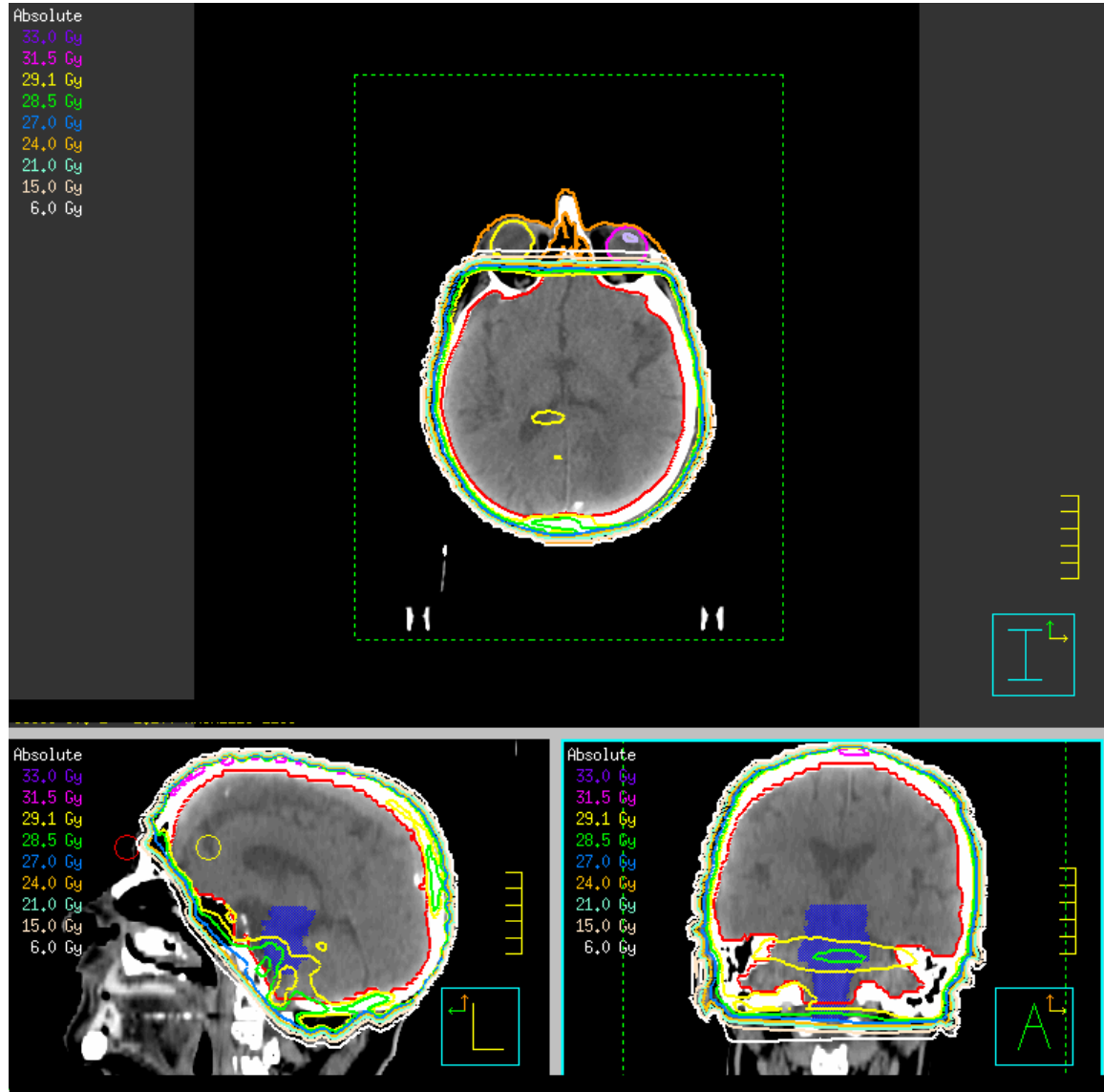
- Diametro < 2 cm → 24 Gy
- Diametro > 2 cm → 15-18 Gy
(prescrizione all'isodose del 85%)



WBRT:

Tecnica 3DCRT

Dose: 30 Gy, fr 3 Gy/die



Caratteristiche pazienti (N=40)

Caratteristiche	SRS	WBRT	Caratteristiche	SRS	WBRT
Età			Metastasi		
Mediana	64	67	Extracraniche		
≤ 60	5	4	Si	9	11
> 60	15	16	No	11	9
Sesso			RPA		
Maschi	13	12	I	2	-
Femmine	7	8	II	18	20
KPS					
90-100	14	12			
70-80	6	8			

FOLLOW-UP: RM encefalo mdc ogni 3 mesi.

FOLLOW UP MEDIANO 7 mesi (range 2-21)

Controllo locale	3 mesi	6 mesi
SRS	85 %	60 %
WBRT	65 %	20 %

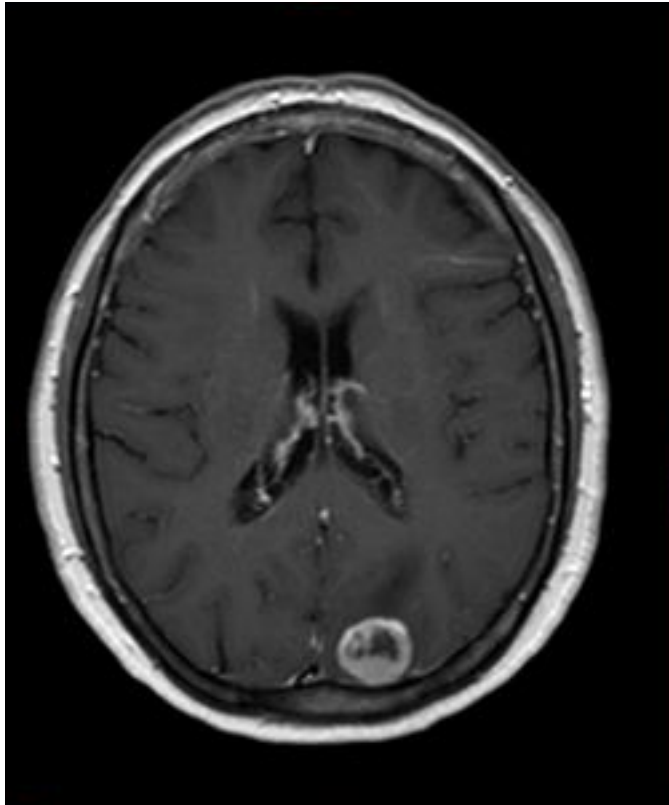
SD lesione trattata
 PD encefalica per
 comparsa di nuove lesioni.
 RITRATTAMENTO:
 -2 SRS
 -1 WBRT

Non tossicità di G3-4 (scala RTOG)

Non si sono verificati casi di radionecrosi sintomatica

TABLE 4
 Results of the Univariate Analysis of Local Control of Treated Metastases

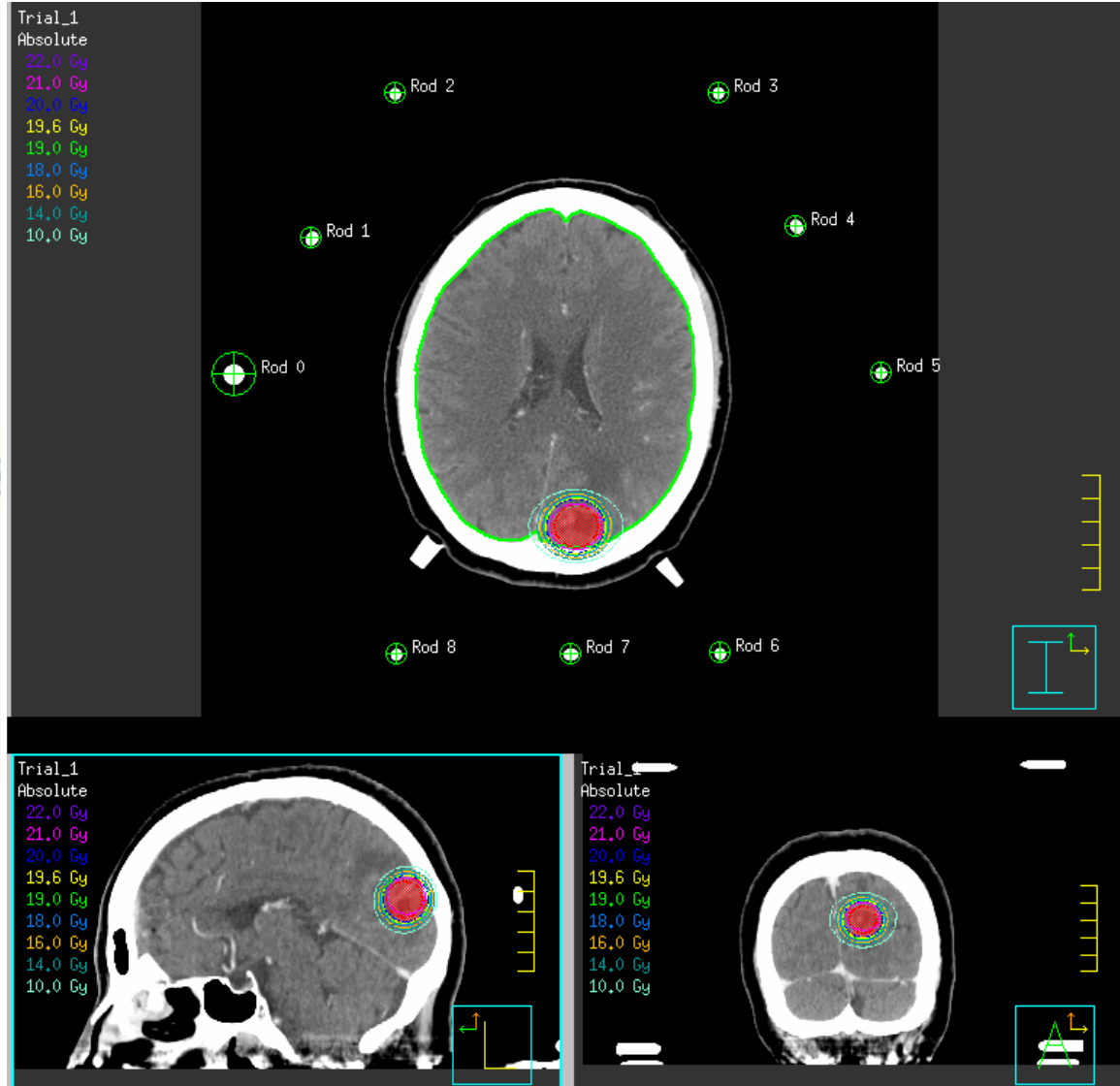
Characteristic	At 6 mo, %	At 12 mo, %	At 24 mo, %	P
Radiation regimen				
WBRT (n = 91)	57	26	5	<.001
SRS (n = 95)	84	64	34	



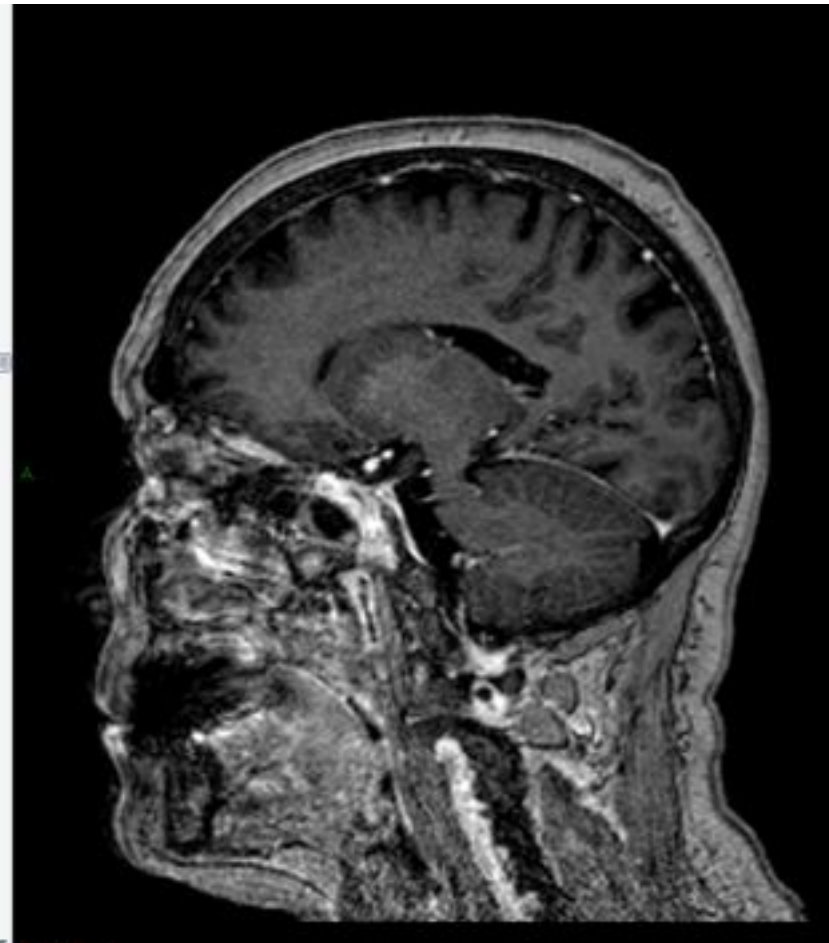
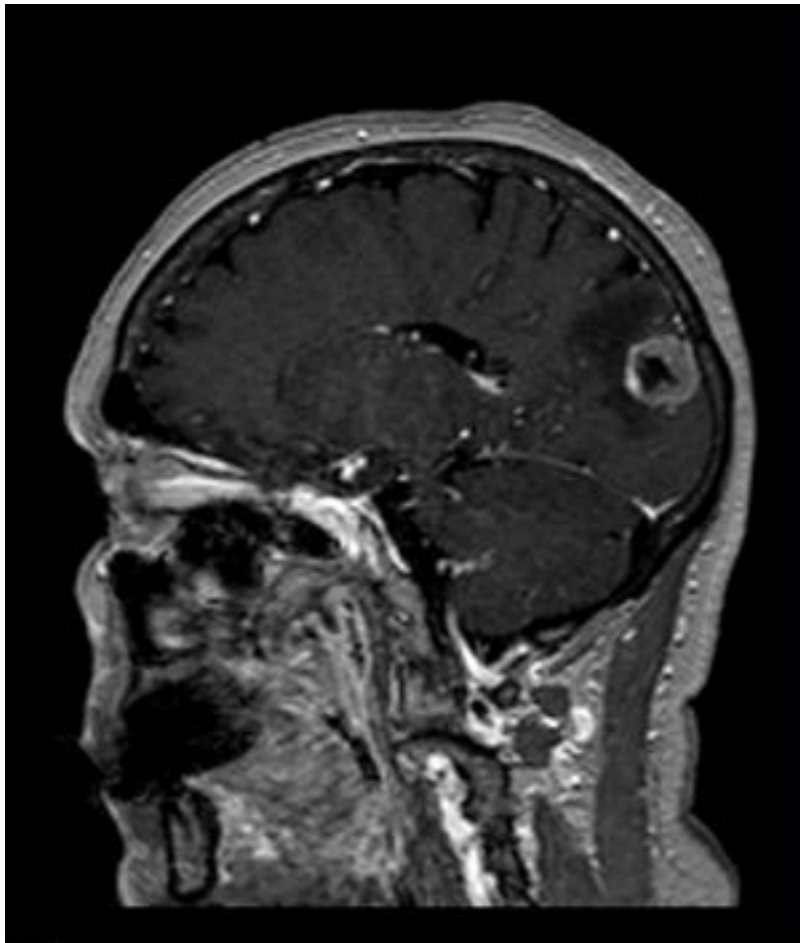
Donna 56aa

Diametro lesione: 15
x 22 mm

Dose 18 Gy



RISPOSTA A 6 MESI



Mortalità	6 mesi	12 mesi
SRS	30 %	44 %
WBRT	85 %	90 %

p= 0.15



Decesso per PD encefalica:
42% SRS vs.48% WBRT

Nella nostra esperienza retrospettiva la SRS:

→ LC migliore rispetto alla WBRT

→ buoni risultati in termini di aderenza al trattamento

→ Tossicità G3-G4: 0

→ minimo impatto sulla qualità di vita

Grazie per l'attenzione

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