



XXXII CONGRESSO NAZIONALE AIRO
XXXIII CONGRESSO NAZIONALE AIRB
XII CONGRESSO NAZIONALE AIRO GIOVANI

AIRO2022

Radioterapia di precisione per un'oncologia innovativa e sostenibile

BOLOGNA, 25-27 NOVEMBRE
PALAZZO DEI CONGRESSI

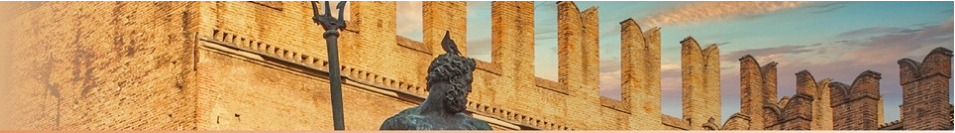
TRATTAMENTO DEL PAZIENTE ANZIANO AFFETTO DA GLIOBLASTOMA: CONFRONTO DEGLI OUTCOME TRA OVER 70ANNI E OVER 65ANNI

L.Bellu¹, P.Navarria¹, E.Clerici¹, F.Pessina^{2,3}, C. Franzese¹, B.Marini¹, M.A.Marzo¹, G. Reggiori¹, P. Gallo¹, M.Scorsetti^{1,3}

¹ Radiotherapy and Radiosurgery Department, IRCCS Humanitas Research Hospital, Rozzano, Milan, Italy

² Neurosurgery Department, IRCCS Humanitas Research Hospital, Rozzano, Milan, Italy

³ Department of Biomedical Sciences, Humanitas University, Pieve Emanuele, Milan, Italy



Background

Standard of care for elderly, newly-diagnosed GBM:
surgical resection followed by hypofractionated RT with concomitant and adjuvant TMZ.

To date, the literature lacks of consistence in the definition of "**ELDERLY**": older than 65 years? or 70 years?
Aim: explore whether differences exist between these two cohorts, comparing outcomes through propensity score matched analysis (PSM).

Methods

All pts received surgery followed by RT with concurrent and adjuvant TMZ.

RT dose:
60Gy in 30 fractions for pts 65–69-year-old,
40.5Gy in 15 fractions for ≥70-year-old.

221 elderly newly diagnosed GBM patients dichotomized in two groups: 65–69 years and over 70 years.

	65-69 years		≥70 years	
	No	%	No	%
Patients	91	100	130	100
Gender				
Female	33	36.2	56	43.1
Male	58	63.4	74	56.9
Age (years)				
Median (range)	66 (65-69)		75 (70-84)	
PS (ECOG)				
0	29	31.9	28	21.5
1	39	42.9	74	57.0
2	23	25.2	28	21.5
CIRS severity score				
0	19	20.9	23	17.7
1	11	12.1	13	10.0
2	51	56.0	81	62.3
3	10	11.0	13	10.0
Location				
Eloquent area	11	12.1	10	7.7
Near eloquent area	66	72.5	96	73.8
Not eloquent area	14	15.4	24	18.5
EDR				
Gross Total Resection (GTR)	39	42.9	52	40.0
Near Total Resection/Subtotal Resection (NTR/STR)	14	15.3	11	8.5
Partial Resection (PR)	19	20.9	30	23.0
Biopsy (B)	19	20.9	37	28.5
MGMT status				
Methylated	39	42.9	45	34.6
Unmethylated	38	41.8	36	27.7
Unknown	14	15.3	49	37.7
RT schedule				
60 Gy/30 frs	91	100	0	0
40.5 Gy/15 frs	0	0	130	100
Discontinuation of RT				
Adjuvant treatments	7	7.7	6	4.6
RT only	20	22.0	51	39.2
RT+concurrent and adjuvant TMZ/CHT	67	73.6	69	53.1
RT+adjuvant TMZ/CHT	4	4.4	10	7.7

Patients, Tumor, treatment characteristics

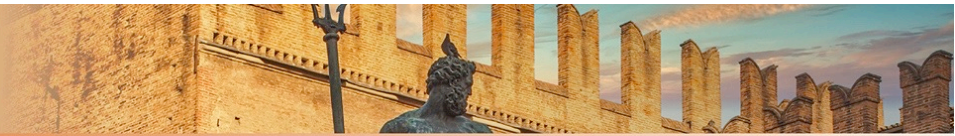
All pts received surgery followed by RT with concurrent and adjuvant TMZ.

RT dose:
60Gy in 30 fractions for pts 65–69-year-old,
40.5Gy in 15 fractions for ≥70-year-old.

	Before PSM				After PSM				p value					
	No all pts (%)		No patients (%)		No all pts (%)		No patients (%)							
	65-69 years	≥70 years	65-69 years	≥70 years	65-69 years	≥70 years	65-69 years	≥70 years						
N patients	221	100	91	41.2	130	58.8	172	100	86	50.0	86	50.0		
ECOG PS														
0	57	25.8	29	31.9	28	21.5	0.100	50	29.1	29	33.7	21	24.4	0.224
1	113	51.1	39	42.9	74	57.0		81	47.1	35	40.7	46	53.5	
2	51	23.1	23	25.2	28	21.5		41	23.8	22	25.6	19	22.1	
EDR														
GTR	91	41.2	39	42.9	52	40.0	0.295	74	43.0	35	40.7	39	45.3	0.352
NTR/STR	25	11.3	14	15.3	11	8.5		21	12.2	14	16.3	7	8.1	
PR	49	22.2	19	20.9	30	23.0		41	23.8	18	20.9	23	26.7	
B	56	25.3	19	20.9	37	28.5		36	21.0	19	22.1	17	19.9	
MGMT														
Unmethylated	74	33.5	38	41.8	36	27.7	0.001	65	37.8	33	38.4	32	37.2	0.728
Methylated	84	38.0	39	42.9	45	34.6		75	43.6	39	45.3	36	41.9	
Unknown	63	28.5	14	15.3	49	37.7		32	18.6	14	16.3	18	20.9	
CIRS severity														
0	42	19.0	19	20.9	23	17.7	0.825	34	19.8	18	20.9	16	18.6	0.490
1	24	10.9	11	12.1	13	10		16	9.3	10	11.6	6	7.0	
2	132	59.7	51	56.0	81	62.3		105	61.0	48	55.9	57	66.3	
3	23	10.4	10	11.0	13	10		17	9.9	10	11.6	7	8.1	
Adjuvant treatments														
RT only	71	32.2	20	22.0	51	39.2	0.008	51	29.7	20	23.3	31	36.0	0.152
RT+concurrent and adjuvant TMZ/CHT	136	61.5	67	73.6	69	53.1		112	65.1	62	72.1	50	58.2	
RT+adjuvant TMZ/CHT	14	6.3	4	4.4	10	7.7		9	5.2	4	4.6	5	5.8	

After PSM 1:1 matching

86 pts in each group;
covariates adequately balanced in the matched data set

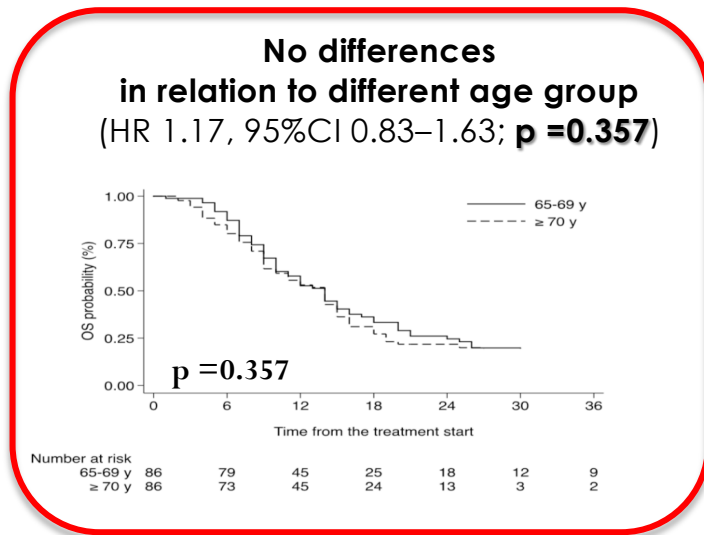


Results

OS

For the **whole cohort**

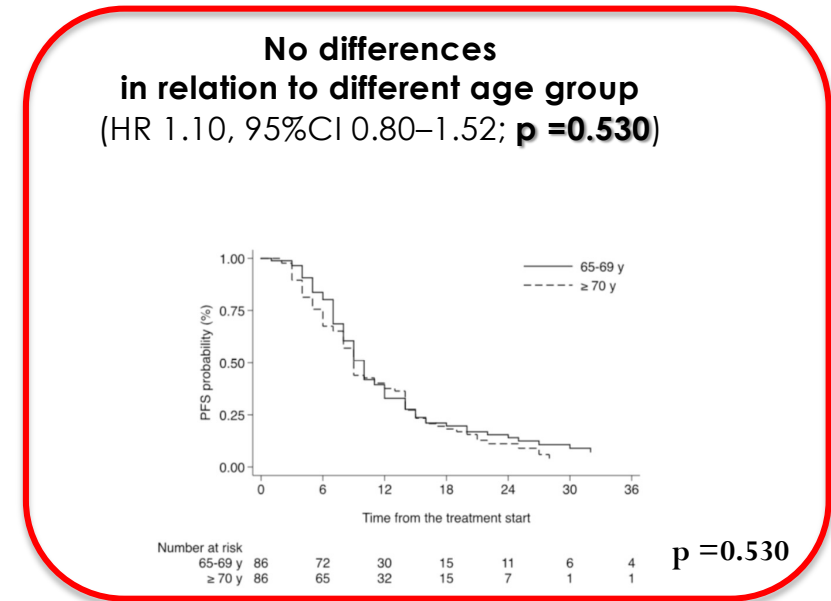
MEDIAN **OS** time **14 months** (CI95%: 11-15 months)
1,2,3-year OS rates 52.8%, 23%, 11.8%



PFS

For the **whole cohort**

median **PFS** time **9 months** (CI95%: 9-10 months)
1,2,3-year PFS rates 35.2%, 12.5%, 5.3%



Conclusions

PSM analyses showed a similar outcome in 65–69-year old pts compared to older ones notwithstanding a more burdensome RT schedule.

Hypofractionated RT treatment should be considered also in this group of younger elderly GBM pts.



XXXII CONGRESSO NAZIONALE AIRO
XXXIII CONGRESSO NAZIONALE AIRB
XII CONGRESSO NAZIONALE AIRO GIOVANI

AIRO2022

Radioterapia di precisione per un'oncologia innovativa e sostenibile

BOLOGNA, 25-27 NOVEMBRE
PALAZZO DEI CONGRESSI

GRAZIE