

**Supplementary Table S1. Baseline characteristics and treatment patterns in elderly patients *IDHm* HGG (Geriatric cohort, N=35) according to histological sub-type.**

Characteristics	Oligodendroglioma (n=25)	Astrocytoma (n=9)
	<i>N (% or range)</i>	<i>N (% or range)</i>
Age (years, median, range)	74.0 (70.2 - 87.1)	73.1 (70.2-83.1)
<b>Gender</b>		
Male	14 (56)	5 (55.6)
Female	11 (44)	4 (44.4)
<b>Symptoms at diagnosis</b>		
Epilepsy	11 (44)	4 (44.4)
Cognitive disorders	4 (16)	3 (33.3)
<b>Neuro-imaging characteristics</b>		
Contrast enhancement	14 (70)	8 (100)
Necrosis	3 (25)	3 (33.3)
<b>Histological characteristics</b>		
Necrosis	6 (24)	9 (100)
Microvascular Proliferation	20 (80)	4 (44.4)
Ki 67 expression (mean, range)	20 (5-40)	10 (1-25)
<b>Post-operative KPS (median, range)</b>	80 (50-100)	70 (50-100)
<b>Steroids intake</b>	11 (55)	2 (25)

<b>Extent of resection</b>		
Gross total /Subtotal	7 (29.2)	2 (22.2)
Partial	4 (16.7)	1 (11.1)
Biopsy	13 (54.1)	6 (66.7)
<b>Adjuvant Treatment</b>		
Wait and scan policy	2 (8)	0
Radiotherapy alone	1 (4)	0
Chemotherapy alone TMZ PCV	6 (24) 4 (16)	6 (67) 0
RT-TMZ	5 (20)	3 (33)
RT-PCV	6 (24)	0
Palliative care	1 (4)	0
<b>Cognitive disorders</b>		
Neuropsychological disorders <sup>a</sup>	4 (23.5)	3 (37.5)
<b>Mobility</b>		
Get out without assistance	13 (81.3)	3 (37.5)
<b>Comorbidities</b>		
Charlson's index $\geq 5$	15 (65.2)	8 (88.9)
Medications > 3	6 (35.3)	3 (33.3)
<b>Nutrition</b>		

Anorexia	2 (12.5)	4 (50)
Weight loss	7 (41.2)	5 (62.5)
BMI < 21	4 (22.2)	3 (33.3)
<b>Autonomy</b>		
ADL < 6	3 (27.3)	3 (42.9)
IADL < 4	6 (54.5)	2 (33.3)
<b>Not a good self-reported state of health</b>	2 (16.7)	4 (80)
<b>G8 score estimation <math>\leq 14/17</math></b>	10 (58.8)	6 (75)

KPS: Karnofsky Performance Scale; BMI: Body Mass Index; ADL: Activities of Daily Living; IADL: Instrumental Activities of Daily Living.

<sup>a</sup> Neuropsychological disorder assessed by G8 score.

**Supplementary Table S2. Treatment feasibility and toxicity in elderly patients according to chemotherapy adjuvant protocol (N=29).** TMZ: temozolomide; PCV: procarbazine, CCNU, vincristine.

	<b>TMZ N (%)</b>	<b>PCV N (%)</b>
<i>Number of patients</i>	19	10
<b>Number of cycles: <math>\geq 6</math> (TMZ); =6 (PCV)</b>	13 (72.3)	5 (50)
<b>Dose reduction at treatment initiation</b>	7 (41.1)	5 (62.5)
<b>Dose reduction maintaining (without AE)</b>	3 (18.8)	1 (12.5)
<b>Dose reduction during treatment due to AE</b>	3 (18.8)	7 (87.5)
<b>Treatment interruption due to AE</b>	2 (12.5)	6 (75)
<b>AE grade <math>\geq 3</math></b>	3 (16)	2 (20)

TMZ: Temozolomide; PCV: Procarbazine, CCNU, Vincristine; AE: Adverse Events grading with Criteria scale for adverse events version 4.0.

**Supplementary Table S3. Treatment toxicity in elderly patients according to chemotherapy adjuvant protocol (N=29).**

	TMZ (N=19) N (%)		PCV (N=10) N (%)	
<i>CTCAE</i>	Grade 1 or 2	Grade ≥3	Grade 1 or 2	Grade ≥3
<b>Haemoglobin decrease</b>	1 (5.2)	-	-	-
<b>Platelet count decrease</b>	3 (15.8)	1 (5.2)	2 (20)	1 (10)
<b>Neutropenia</b>	1(5.2)	-	2 (20)	-
<b>Febrile neutropenia</b>	-	-	-	-
<b>Urinary infection</b>	-	-	1 (10)	-
<b>Lymphopenia</b>	-	1 (5.2)	-	-
<b>Asthenia/Fatigue</b>	8 (42.1)	-	3 (30)	3 (30)
<b>Anorexia/Weight loss</b>	3 (15.8)	-	-	1 (10)
<b>Constipation</b>	1 (5.2)	-	1 (10)	-
<b>Nausea/Vomiting</b>	2 (10.5)	-	1 (10)	-
<b>Cutaneous AE (dermatitis, allergic rash, alopecia)</b>	1 (5.2)	-	1 (10)	-
<b>Neuropathy</b>	-	-	2 (20)	-

<b>Thromboembolic event</b>	-	-	-	-
<b>Liver enzyme elevation</b>	-	-	-	-

TMZ: Temozolomide; PCV: Procarbazine, CCNU, Vincristine; AE: Adverse Events grading with Criteria scale for adverse events version 4.0.

**Supplementary Table S4. Predictive factors of treatment toxicity in elderly *IDH* mutated high-grade glioma cohort (N=34).**

	<b>AE grade <math>\geq 3</math></b>	<b>Treatment interruption due to toxicity</b>
	<i>p-value</i>	<i>p-value</i>
<b>G8 score (items)</b>		
Anorexia	0.690	0.279
Weight loss	0.082	0.174
Mobility	0.362	0.047
Neuropsychological disorders	0.380	0.490
BMI	0.290	0.115
Number of medications > 3	1.000	0.631
Self-reported state of health	0.004	0.443
Age ranges	1.000	0.234
<b>Autonomy</b>		
ADL	0.268	0.245
IADL	0.538	0.231
<b>Charlson's index score</b>	1.000	1.000
<b>Post-operative KPS</b>	0.013	0.529

AE: Adverse events grading with Criteria scale for adverse events version 4.0; BMI: Body Mass Index; ADL: Activities of Daily Living, IADL: Instrumental Activities of Daily Living, KPS: Karnofsky Performance Scale.