

**Table 1. Major neuroimaging characteristics of study patients.**

Patient	Tumor localization		Side	Tumor volume (cm <sup>3</sup> )	Contrast enhancement	Tumor pattern (T2WI/FLAIR)	Bone remodeling	Relation to basal arteries	Defects (cyst/ necrosis/ VRS)
	Lobe(s)	Orientation							
1	Both frontal	Basal	Left>right	64.45	No	Ground glass	Olfactory groove	Encasement	Yes
2	Frontal Temporal	Basal	Right	80.14	No	Ground glass	Skull base, Sphenoid body and wing	Encasement	Yes
3	Temporal	Anterior	Left	65.92	Yes (intermediate, band-like)	Band-like	Sphenoid wing	Displacement	Yes
4	Temporal	Mesial	Right	2.28	No	Ground glass	No direct contact to bone	No direct contact to arteries	No
5	Both frontal	Basal	Left>right	35.83	No	Ground glass	Orbital roof	Encasement	Yes
6	Temporal	Mesial	Left	4.86	No	Ground glass	No direct contact to bone	No direct contact to arteries	Yes
7	Temporal	Mesial	Left	10.05	No	Ground glass	Anterior clinoid process	No direct contact to arteries	Yes
8	Frontal	Convexity	Right	5.82	Yes (intermediate, band-like)	Band-like	Parietal bone	No direct contact to arteries	Yes
9	Frontal	Basal	Right	44.46	Yes (intermediate, patchy)	Ground glass	Anterior clinoid process	Encasement	Yes

**Table 2. Clinical and treatment-related characteristics of study patients.**

Patient	Sex	Age at diagnosis (years)	Clinical presentation [duration]	Primary diagnosis	Treatment	Outcome
1	female	6.3	Seizures (complex partial) [4-5 months]	CNS neuroblastoma IV	Partial resection Individualized chemotherapy Local irradiation (54 Gy)	AWD (stable residual mass) FU: 10 months
2 <sup>1,2</sup>	female	16.0	Seizures (complex partial), nausea, “strange thoughts” [18 months]	Anaplastic oligodendroglioma III <sup>1</sup>	Partial resection Local irradiation (59.4 Gy) <sup>2</sup>	PD (single lesion: right posterior horn of the lateral ventricle) 26 months after diagnosis → Complete resection, chemotherapy → PD LTFU 71 months after diagnosis
3	female	12.8	Intermittent double vision [1 month]	CNS neuroblastoma IV	Partial resection CSI (35.2 Gy/boost 55 Gy) 8 cycles chemotherapy (vincristine/lomustine/cisplatin/carboplatin) Second resection (complete)	NED FU: 39 months
4 <sup>3</sup>	male	4.2	Seizures (complex partial) [1 day]	Anaplastic oligodendroglioma III	Complete resection Local irradiation (54 Gy) Temozolomide (synchronous and 12 cycles maintenance)	NED FU: 34 months
5	female	7.6	not reported	Anaplastic oligodendroglioma III	Partial resection Local irradiation (59.4 Gy) Temozolomide (synchronous and prolonged maintenance [18 months])	AWD (stable residual mass) FU: 21 months
6	male	11.8	Seizures (complex partial) [<1 month]	Dysembryoplastic neuroepithelial tumor I	Complete resection	NED FU: 108 months

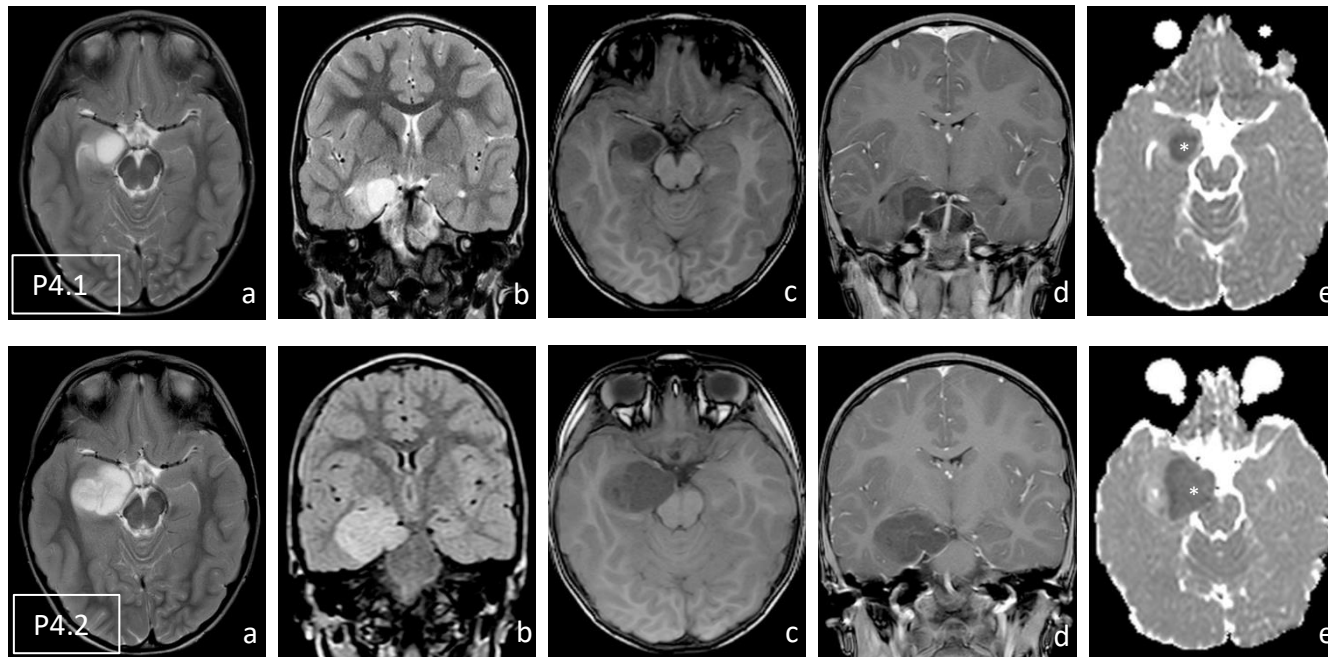
**Table 2. Clinical and treatment-related characteristics of study patients (continued):**

Patient	Sex	Age at diagnosis (years)	Clinical presentation [duration]	Primary diagnosis	Treatment	Outcome
7	female	6.4	Status epilepticus	Anaplastic oligoastrocytoma III	Subtotal resection Local irradiation (59.4 Gy) Temozolomide (synchronous and 12 cycles maintenance)	NED FU: 154 months
8	female	9.9	not reported	CNS PNET IV	Complete resection CSI (27.2 Gy/boost 52.4 Gy) 8 cycles chemotherapy (vincristine/lomustine/cisplatin)	NED FU: 61 months
9	male	21.8	not reported	CNS PNET IV	Complete resection CSI (36 Gy/boost 54 Gy)	NED FU: 104 months

<sup>1</sup>Second neuropathological review favored the diagnosis of atypical neurocytoma; <sup>2</sup>Local irradiation was delayed by 4 months after diagnosis due to patient's refusal; <sup>3</sup>An initial watch-and-wait strategy was pursued after first imaging, 3.5 months later second MRI showed massive progression.

*Abbreviations:* AWD, alive with disease; CSI, craniospinal irradiation; LTFU, lost to follow-up; NED, no evidence of disease; PD, progressive disease

**Figure 2. MRI scans of patient 4 at diagnosis (P4.1) and progression (P4.2).**



In patient 4, MRI scans at two different time-points (both prior to initiation of therapy) were available:

P4.1 depicts initial imaging; P4.2 shows a follow-up scan after 3.5 months without treatment, with a three-fold tumor volume increase accompanied by a reduction in the T2W and FLAIR signals;

Columns: (a) axial T2WI; (b) coronal T2WI (P4.1) and coronal FLAIR (P4.2); (c) axial T1WI; (d) coronal contrast-enhanced T1WI; (e) axial DWI/ADC.