

Table 2. Summary of literature reporting temozolomide therapy for aggressive pituitary carcinomas

Case No	Reference	Age/Sex	Clinical diagnosis	Metastasis	Previous treatment	MGMT status	TMZ regimen	Side effects
1	Bengtsson 2015	49/Female	PRL-/GH-secreting CA	LN	DA, SSA, SX, RT	(+) 9%	150–200mg/m ² × 5/28 days × 23 cycles	Not specified
2	Bengtsson 2015	32/Female	PRL-secreting CA	LN, brainstem & skeletal	DA, SSA, SX, RT, chemo	(+) 50%	150–200mg/m ² × 5/28 days × 14 cycles	Not specified
3	Bengtsson 2015	59/Female	PRL-secreting CA	Cerebral & intraspinal	DA, SX	NA	150–200mg/m ² × 5/28 days × 19 cycles	Not specified
4	Bruno 2015	78/Male	PRL-secreting CA	Brain	TNS, RT, DA	NA	140 mg/m ² × 5/28 days × 1 cycle	NA
5	Zemmoura 2013	54/Male	PRL-secreting CA	LN + leptomeningeal	DA, quinagolideolide, TNS, stereotactic RT, chemo	NA	200 mg/m ² × 5/28 days × 5 months	NA
6	Hirohata 2013	60/Female	PRL-secreting CA	N/A	N/A	(-)	150–200 mg/m ² × 5/28 days × 13 months	NA
7	Hirohata 2013	60/Female	PRL-secreting CA	N/A	N/A	(+)	150–200 mg/m ² × 5/28 days × 12 months	Pancytopenia (dose reduced to 100)
8	Hirohata 2013	60/Male	PRL-secreting CA	N/A	N/A	(-)	150–200 mg/m ² × 5/28 days × 24 months	NA
9	Philipon 2012	45/Male	PRL-secreting CA/ MEN 1	Cerebral, spinal	DA, RT	NA	initial dose 500 mg/m ² then 200 mg/m ² × 5/28 days 24 cycles	NA
10	Murkami 2010	60/Female	atypical prolactinoma > PRL-secreting CA	Intraventricular dissemination	DA, Sx, RT, RadioSx, salvage chemo	(-)	200 mg/m ² for 5/28 days × 10 cycles	NA
11	Raverot 2010	32/Male	PRL-secreting CA	N/A	TNS, stereotactic RT	NA	150–200 mg/m ² × 5/28 days × 24 cycles	NA
12	Raverot 2010	54/Male	PRL-secreting CA	N/A	TNS, stereotactic RT, gamma knife	(-)	150–200 mg/m ² × 5/28 days × 5 cycles	NA
13	Raverot 2010	30/Female	PRL-secreting CA	N/A	TNS, stereotactic RT	(+)	150–200 mg/m ² × 5/28 days × 3 cycles	NA
14	Byrne 2009	64/Male	PRL-secreting CA	Vertebral spine	DA, TNS, RT	NA	200 mg/m ² × 5/28 × 12 cycles	(-)
15	Hagen 2009	48/Female	PRL-/GH-secreting CA	Cervical L.N	DA, Sandostatin, TNS, RT	(-)	150–200 mg/m ² × 5/28 × 23 cycles	NA
16	McCormack 2009	42/Male	PRL-secreting CA	Intracranial, pelvic & vertebral	DA, TNS, RT, octreotide	(-)	200 mg/m ² × 5/28 days × 3 months	(-)
17	Kovacs 2007	46/Male	PRL-secreting CA	(-)	DA, Sx, RT, SSA	NA	200 mg/m ² /d × 5/28 days × 7 months	NA
18	Lim 2006	72/Male	PRL-secreting CA	Cervical spine & CP angle	DA, SX	N/A	200 mg × 5/28 days × 18 cycles	Nausea & nasal congestion
19	Fadul 2006	26/Male	PRL-secreting CA	Vertebral spine	DA, TNS, chemo	(-)	5/28 days × 10 cycles	Severe fatigue

Table 2. Summary of literature reporting temozolomide therapy for aggressive pituitary carcinomas (cont.)

Case No	Clinical response	PRL pre	PRL post	PRL response	Initial tumor size pre-treatment	Tumor size post-treatment	Post-treatment follow-up status	Reference sources
1	NA	NA	NA	Normalized	NA	Decreased	Complete response	Case Series
2	NA	NA	NA	NA	NA	Progression	Progressive	Case Series
3	NA	NA	NA	Decreased 80%	NA	Decreased >50%	Stable	Case Series
4	NA	NA	NA	NA	>10 mm	NA	Progressive	Case Series
5	NA	NA	NA	Increased	NA	Increased	Progressive	Case report
6	NA	NA	NA	NA	NA	NA	Complete response	Case Series
7	NA	NA	NA	NA	NA	NA	Partial response	Case Series
8	NA	NA	NA	NA	NA	NA	Partial response	Case Series
9	Improved	11800 ng/ml	254 ng/ml	Decreased 97.85%	NA	Decreased 62%	Stable	Case report
10	Improved	2355 ng/mL	42.2 ng/mL	Decreased 98.2%	NA	Decreased	Progressive	Case report
11	NA	NA	NA	Normalized	>10 mm	Decreased 60%	Stable	Case Series
12	NA	NA	NA	No response	NA	Metastasized	Progressive	Case Series
13	NA	NA	NA	No response	NA	Metastasized	Progressive	Case Series
14	Improved	90000 mIU/L	24000 mIU/L	Decreased 73%	NA	Reduced	Clinical improvement	Case report
15	Improved	738 mg/l	14 mg/l	Decreased 98%	68×48 mm	Decreased 60% (mets)	Stable	Case report
16	Improved	504,602 mIU/L	90.863 mIU/L	Decreased 98.4%	NA	Decreased	Partial response	Case report
17	Improved	1838 ng/ml	30 ng/mL	Decreased 98.4%	50×45×50 mm	Decreased	Partial response	Case report
18	Improved	73000 IU/L	6.1 IU/L	Decreased 99.92%	14×9 mm	Decreased 100% - mass disappeared, mets resolved	Stable	Case report
19	Improved	694 ng/ml	50 ng/ml	Decreased 92.8%	NA	Decreased	Stable	Case report

Ca: carcinoma; PRL: prolactin; GH: growth hormone; NA: not available; RT: radiotherapy; SR: stereotactic radiotherapy; SSA: somatostatin analogs; DA: dopamine agonist; TNS: transsphenoidal surgery; TC: transcranial surgery; MGMT: methylguanine-DNA methyltransferase; (-): negative; (+): positive; LN: lymph node.