

Table 1. Summary of literature reporting temozolomide therapy for aggressive pituitary adenomas

Case No	Reference	Age/Sex	Clinical diagnosis	Metastasis	Previous treatment	MGMT status	TMZ regimen	Side effects
1	Moisi 2016	37/Female	Atypical prolactinoma	(-)	DA, TNS, stereotactic Sx, gamma knife RadioSx, frontotemporal craniotomy	NA	150 mg/m ² × 1st cycle, 200 mg/m ² × 5/28 days × 12 cycles	NA
2	Bengtsson 2015	22/Male	PRL adenoma/MEN-1	(-)	DA, SSA, SX, RT	(+) 90%	150–200mg/m ² × 5/28 days × 15 cycles	Not specified
3	Bengtsson 2015	34/Male	PRL adenoma	(-)	DA, Sx, RT	(+)100 %	150–200mg/m ² × 5/28 days × 4 cycles	Not specified
4	Bengtsson 2015	45/Male	PRL adenoma	(-)	DA, lomustine, SX	(+) 100%	150–200mg/m ² × 5/28 days × 5 cycles	Not specified
5	Bengtsson 2015	60/Male	PRL adenoma	(-)	DA, SSA, Sx	(+) 9%	150–200 mg/m ² × 21 cycles	(+) Not specified
6	Bengtsson 2015	68/Male	PRL adenoma	(-)	DA, Sx	(+) 9%	150–200 mg/m ² × 5/28 days × 1 cycle	Not specified
7	Bengtsson 2015	23/Male	PRL adenoma	(-)	DA, SSA, RT, Sx, pasireotide	(+) 100	150–200 mg/m ² × 5/28 days × 4 cycles	Not specified
8	Bengtsson 2015	55/Male	PRL adenoma	(-)	DA, SSA, RT, SX	(+) 20%	150–200 mg/m ² × 5/28 days × 11 cycles	Not specified
9	Bengtsson 2015	33/Male	Mixed GH/PRL adenoma	(-)	DA, SSA, SX	(+) 10%	150–200 mg/m ² × 5/28 days × 3 cycles	Not specified
10	Strowd 2015	44/Female	PRL adenoma	(-)	DA, TNS, RT	N/A	150–200 mg/m ² × 5/28 days (3+4 cycles)	NA
11	Hiorhata 2013	66/Female	PRL adenoma	(-)	RT	(-)	75 mg/m ² × 6 weeks	NA
12	Hiorhata 2013	49/Female	PRL adenoma	(-)	N/A	(-)	150–200 mg/m ² × 5/28 days × 3 months	NA
13	Whitelaw 2012	34/Male	PRL adenoma	(-)	DA, TNS, fractionated RT	(-)	200 mg/m ² × 5/28 days × 6 cycles	NA
14	Whitelaw 2012	32/Male	PRL adenoma	(-)	DA, TNS, fractionated RT	(-)	200 mg/m ² × 5/28 days × 6 cycles	NA
15	Whitelaw 2012	13/Male	PRL adenoma	(-)	DA, TNS	(-)	200 mg/m ² × 5/28 days × 12 cycles	NA
16	Philips 2012	25/Male	PRL adenoma	(-)	DA, TNS, gamma knife RT, debulking	NA	350 mg × 5 days	NA
17	Whitelaw 2010	16/Male	PRL adenoma	(-)	DA, TNS, RT	(+) < 5%	6 cycles	NA
18	Raverot 2010	52/Male	PRL adenoma	(-)	TNS, stereotactic RT	(+) 0.3%	150–200 mg/m ² × 5/28 days × 8 cycles	NA
19	Bush 2010	N/A	PRL adenoma	(-)	TNS, gamma knife RT	(+) 10%	75mg/m ² /d × 21 days (1 wk off)	(-)
20	Debono 2008	47/Male	PRL adenoma/MEN 1	(-)	DA, TNS, gamma knife RT	NA	N/A × 7 months	NA
21	Neff 2007	52/Female	PRL adenoma	(-)	2 DA, EBR, gamma knife RT, Octreotide	NA	250 mg (150 mg/m ²) × 5/28 days	Moderate fatigue
22	Losa 2006	62/Male	PRL adenoma	(-)	DA, TNS, RT	(-)	150–200 mg/m ² /d × 5/28 days × max 12 cycles	NA
23	Losa 2006	57/Female	PRL adenoma	(-)	DA, 2 TNS, gamma knife RadioSx	(-)	150–200 mg/m ² /d × 5/28 days × 12 cycles	NA

Table 1. Summary of literature reporting temozolomide therapy for aggressive pituitary adenomas (cont.)

Case No	Clinical response	PRL pre	PRL post	PRL response	Post-treatment follow-up status	Initial tumor size pre-treatment	Tumor size post-treatment	Sources
1	Improved	NA	NA	NA	Partial response	34 × 31 × 38 mm	NA	Case Report
2	Improved	NA	NA	NA	Progressive	NA	NA	Case Series
3	NA	NA	NA	Decreased 71%	Partial response	NA	NA	Case Series
4	NA	NA	NA	Decreased	Partial response	NA	NA	Case Series
5	NA	NA	NA	Normalized	Partial response	NA	NA	Case Series
6	NA	NA	NA	NA	Progressive	NA	NA	Case Series
7	NA	NA	NA	NA	Progressive	NA	NA	Case Series
8	NA	NA	NA	Decreased 73%	Progressive	NA	NA	Case Series
9	NA	NA	NA	NA	Stable	NA	NA	Case Series
10	Improved	NA	NA	Decreased 99.3%	Partial response	27 × 13.6 mm	NA	Case Report
11	NA	NA	NA	NA	Complete response	NA	NA	Case Series
12	NA	NA	NA	NA	Progressive	NA	NA	Case Series
13	Improved	90000 mU/l	3222 mU/l	Decreased 96.42%	Partial response	60 mm	NA	Case Series
14	Improved	24000 mU/l	4540 mU/l	Decreased 81.08%	Partial response	NA	NA	Case Series
15	Improved	49000 mU/l	3515 mU/l	Decreased 92.82%	Partial response	NA	NA	Case Series
16	NA	44 ng/ml	NA	NA	Progressive	40 × 30 × 20 mm	NA	Case Report
17	Improved	49,000	5000 mU/l	Decreased 89.8%	NA	NA	NA	Case Report
18	NA	NA	NA	Increased	Progressive	NA	NA	Case Series
19	Improved	5702 ng/ml	121 ng/ml	Decreased 97.88%	Partial response	NA	NA	Case Series
20	Improved	24 000 mU/l	800 mU/l	Decreased 96.66%	Stable	NA	NA	Case Report
21	Improved	7000 ng/ml	150–260 ng/ml	Decreased 96.3%	Stable	20 mm	NA	Case Report
22	Developed 3 rd nerve palsy	2800 ng/m	1232 ng/m, then rising trend	Decreased 56%	Stable	NA	NA	Case Series
23	Improved	1845 ng/ml	8 ng/ml	Decreased 99.57%	Complete response	NA	NA	Case Series

Ad: adenoma; 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