

## Supplementary

**Table S1** Characteristics of 14 patients before surgery for Cushing's disease (CD)

Pt	Age at CD diagnosis	Sex	Disease duration (years)	Tumor size (mm <sup>3</sup> )	Thyroid USG	TSH (μIU/mL)	FT3 (pg/mL)	FT4 (ng/dL)	TPOAb	TgAb
1	33	F	3	8*8*6	Normal	2.237	2.83	1.047	neg	neg
2	35	F	7	3*2*2	Normal	0.650	2.66	0.893	neg	neg
3	28	F	3	10*8*8		1.335	2.00	1.233		
4	80	F	5	20*32*18		1.183	1.37	0.691		
5	26	F	3	5*5*5		1.154	2.45	1.068		
6	45	F	8	5*3*3	D	1.379	2.76	1.126	neg	neg
7	23	F	1.6	6*6*6	D	1.935	2.93	1.230	neg	neg
8	32	F	4	5*5*5		0.798	2.56	0.983		
9	16	F	1.5	4*5*6	D	1.390	2.96	1.128		
10	31	F	1	4*4*4	D	0.481	2.26	0.940		
11	47	F	8	4*3*2		2.206	2.53	1.330		
12	35	F	2	8*6*6		1.331	2.56	0.871		
13	29	F	3	5*5*4		0.746	2.57	1.223		
14	35	F	8	8*7*6		1.099	2.82	1.180	neg	neg

D thyroid with normal size but with nodules. neg, negative; USG, ultrasonography; TPOAb, anti-thyroid peroxidase antibody; TgAb, anti-thyroglobulin antibody; FT4, free thyroxine; FT3, free triiodothyronine; TSH, thyroid stimulating hormone; Hormonal normal values, FT4: 0.81–1.89 ng/dL; FT3: 1.8–4.1 pg/mL; TSH: 0.38–4.34 μIU/mL. The patients are numbered according to the time when their surgeries were performed.

**Table S2** Clinical profiles of 14 patients with postoperative thyrotoxicosis after surgery for Cushing's disease

Pt	Onset of TT% of TT (m)	Duration of TT (m)	Sub hypo	TSH# (μIU/mL)	FT3# (pg/mL)	FT4# (ng/dL)	TRAb	TPOAb	TgAb	Cortisol# (μg/dL)	Treatment before TT	Management of TT
1	3.2	+P	-	0.047	5.59	1.647	pos	pos	pos	14.47	none	ob first, then ATDs+β
2	5.1	2.1	+P	0.009	5.93	1.971				0.20*	H, L-T4, E	H↑, Dc
3	7.3	2.1	+P	0.008	6.00	2.264				0.50*	H, L-T4, E	H↑+β, Dc
4	1.6	1.2	+P	<0.008	3.99	2.041		neg	pos	5.04*	H, L-T4	H↑, Dc
5	2.7	2.3	+P	0.012	13.32	6.390	neg	pos	pos	4.33*	H	H↑+β
6	4.5	1.1	+T	0.018	14.55	2.768	neg	neg	neg	1.11*	H	H↑+β
7	5.1	1.3	+T	0.361	4.55	0.966				3.03*	H	H↑
8	3.7	3.2	+T	0.011	5.96	1.640		neg	neg	3.31*	H	H↑
9	1.2	1.9	+T	0.007	10.22	3.660	neg	neg	neg	10.36*	H	H↑+β
10	4.7	1.3	-	0.375	4.14	1.072				0.51*	H	H↑
11	3.2	2.8	-	0.271	4.95	1.406				0.77*	H	H↑
12	2.9	1.6	-	<0.008	9.88	3.273	neg	neg	neg	0.39*	H	H↑+β
13	3.2	2.8	-	0.101	4.77	1.420				6.06*	H	H↑
14	4.1	1.0	+P	0.009	>20.00	7.050	neg	neg	neg	1.33*	H	prednisone+β

% months after surgery; # tested at the time of diagnosis of thyrotoxicosis; \* tested before the morning hydrocortisone administration; TT, thyrotoxicosis; Sub hypo, subsequent hypothyroidism; pos, positive; neg, negative; +P, permanent; +T, transient; H, hydrocortisone; H↑, higher dose of hydrocortisone; TRAb, anti-thyrotropin receptor antibody; - no subsequent hypothyroidism; L-T4, levothyroxine; Dc, discontinue levothyroxine; β, β-blockers; ATDs, anti-thyroid drugs; E, estrogens. Hormonal normal values, FT4: 0.81–1.89 ng/dL; FT3: 1.8–4.1 pg/mL; TSH: 0.38–4.34 μIU/mL, cortisol: 4.0–22.3 μg/dL.