

On-line Table 1: General clinical data—iR-fMRI quality and DCS results

No.	Sex	Age (yr)	Ane	Tumor Cavity with NS	Satisfactory R-fMRI		DCS ^a			Pathology ^b	Preoperative Motor Deficits
					Preop	Intraop	H	F	M		
1	M	59	G	Y	Y	Y	0	0	0	AA	N
2	M	43	Aw	N	Y	Y	3	3	3	A	N
3	F	19	Aw	N	Y	Y	0	0	0	GBM	N
4	F	43	G	Y	Y	N	0	0	0	Met	N
5	M	25	Aw	Y	Y	Y	2	1	0	A	N
6	M	43	Aw	N	Y	Y	0	0	0	O	N
7	M	61	G	Y	Y	Y	0	0	0	AA	N
8	M	29	G	N	Y	Y	1	0	0	O	N
9	M	27	G	Y	Y	Y	0	0	0	A	N
10	M	45	G	N	Y	N	0	0	0	A	N
11	M	45	G	N	N	N	0	0	0	GBM	N
12	F	54	Aw	N	Y	Y	2	2	0	A	N
13	M	33	Aw	N	Y	N	0	0	1	AA	N
14	M	49	G	Y	N	Y	0	0	0	L	Y
15	F	70	Aw	N	Y	N	2	0	1	GBM	Y
16	M	42	G	N	Y	N	0	0	0	A	N
17	M	52	G	N	N	N	0	0	0	O	N
18	M	33	Aw	N	Y	Y	1	0	0	A	N
19	M	43	Aw	N	Y	Y	3	0	2	GBM	Y
20	M	34	Aw	Y	Y	Y	4	2	1	A	N
21	F	44	Aw	Y	Y	Y	0	0	1	GBM	N
22	F	41	Aw	N	Y	Y	2	0	2	A	N
23	M	52	G	N	Y	N	2	0	0	AA	N
24	F	53	G	N	Y	Y	0	0	0	AA	N
25	F	37	Aw	Y	Y	Y	2	2	1	A	N
26	F	33	Aw	Y	Y	Y	4	0	0	A	N
27	M	41	Aw	Y	Y	Y	5	1	0	A	N
28	M	47	Aw	N	Y	N	2	1	2	AO	N
29	F	27	Aw	Y	Y	Y	4	2	0	AA	N
30	F	51	Aw	N	Y	Y	2	3	1	OA	N

Note:—Ane indicates anesthesia type; Aw, awake anesthesia; G, general anesthesia; NS, normal saline; Y, yes; N, no; H, hand; F, foot; M, mouth; L, lymphoma; Met, metastatic tumor; A, astrocytoma; O, oligodendroglioma; OA, oligoastrocytoma; AA, anaplastic astrocytoma; AO, anaplastic oligodendroglioma; GBM, glioblastoma multiforme; Preop, preoperative; Intraop, intraoperative.

^a Each number indicates the number of positive units after DCS. A 10 × 10 mm area on the exposed cortical surface was considered 1 unit of stimulation.

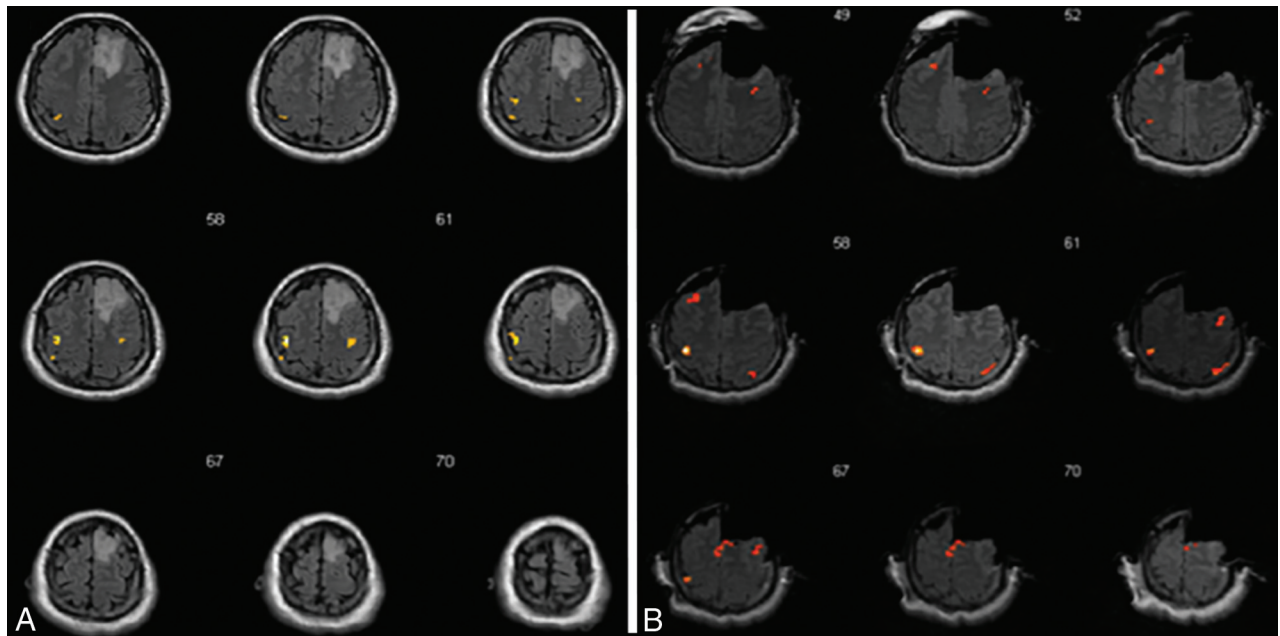
^b According to the 2007 World Health Organization Classification of Tumours of the Central Nervous System.

On-line Table 2: 4-fold table of the results of iR-fMRI and DCS^a

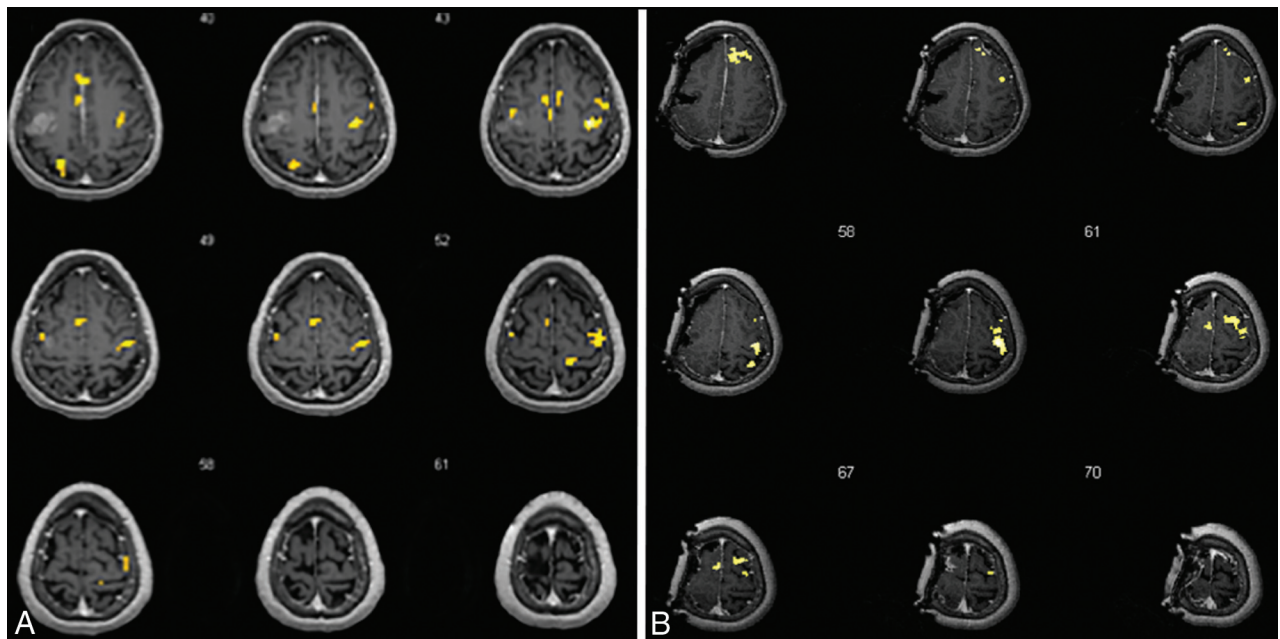
	iR-fMRI(+)	iR-fMRI(-)
DCS(+)	37	23
DCS(-)	10	148

Note:—TP indicates true-positive; TN, true-negative; FP, false-positive; FN, false-negative.

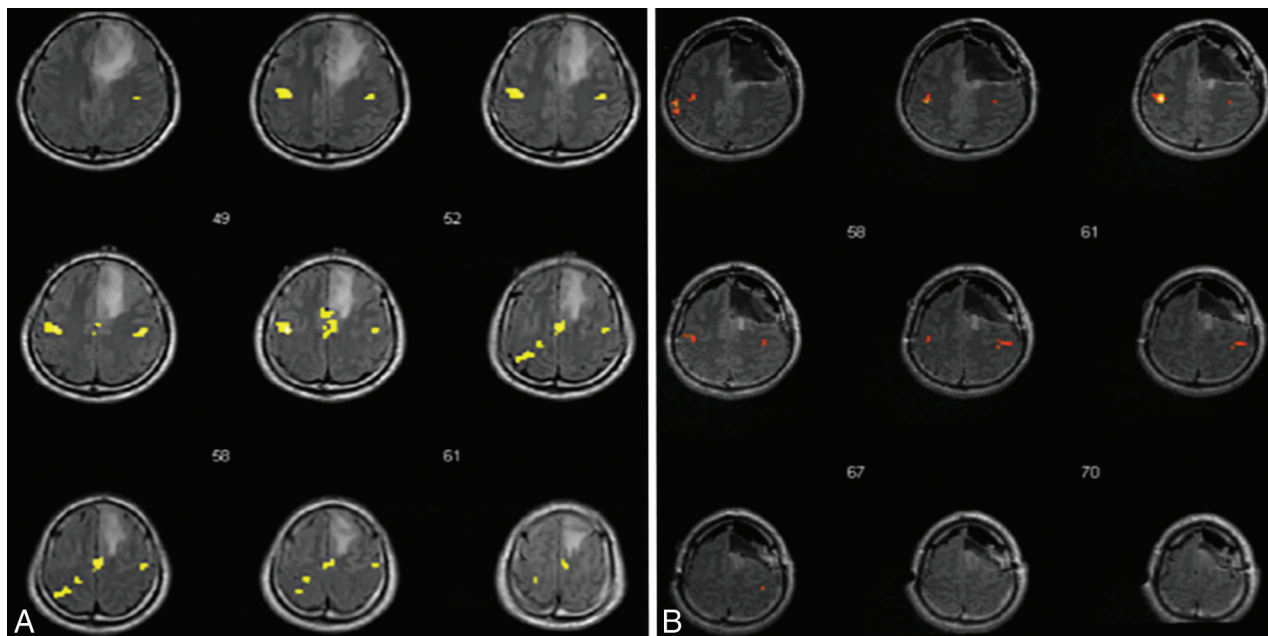
^a TP = 37, TN = 148, FP = 10, FN = 23.



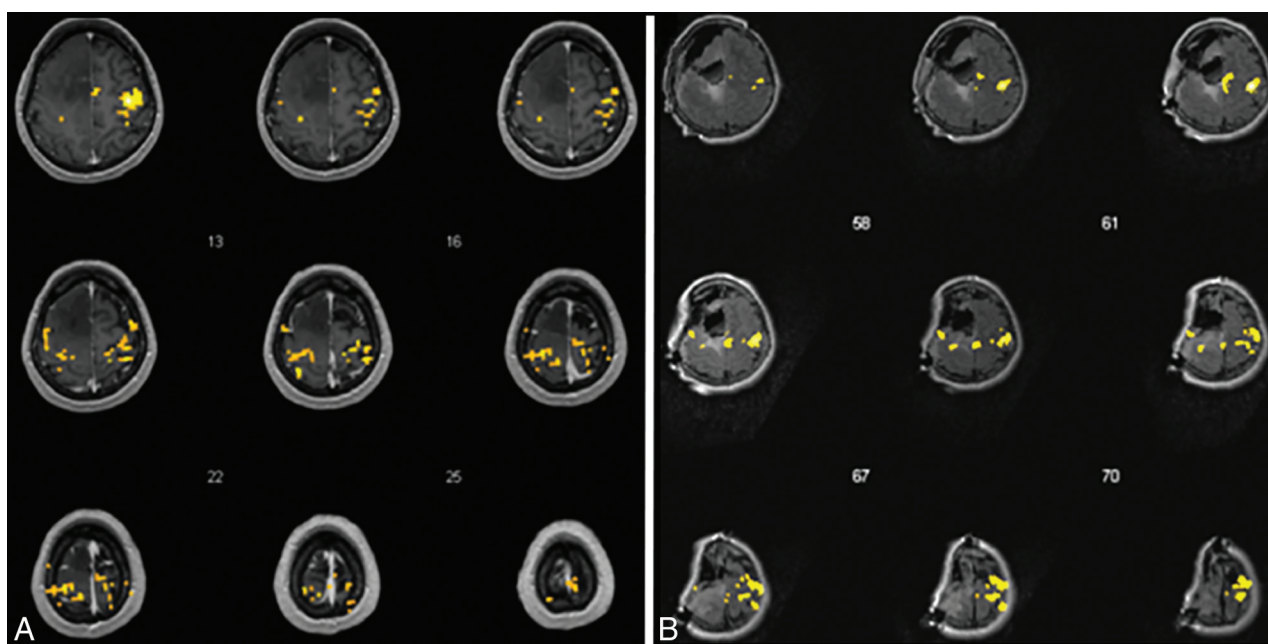
ON-LINE FIG 1. Preoperative R-fMRI and intraoperative R-fMRI of case 10 in On-line Table 1. The motor area is shown clearly on preoperative images, but obvious irrational motor functional connectivity is found in bilateral hemispheres on intraoperative images.



ON-LINE FIG 2. Preoperative R-fMRI and intraoperative R-fMRI of case 15 in On-line Table 1. Preoperative R-fMRI shows the bilateral motor area. However, irrational motor functional connectivity is found on iR-fMRI.



ON-LINE FIG 3. Preoperative R-fMRI and intraoperative R-fMRI of case 9 in On-line Table 1. Both preoperative and intraoperative R-fMRI show good results in the motor areas.



ON-LINE FIG 4. Preoperative R-fMRI and intraoperative R-fMRI of case 25 in On-line Table 1. Both preoperative and intraoperative R-fMRI show good results in the motor areas.