On-line Table 1: Patient details^a

No.	Age (yr)	Sex	Lesion	Confirmation	
1	49	F	Glioblastoma	Histopathology	
2	55	М	Glioblastoma	Histopathology	
3	50	М	Glioblastoma	Histopathology	
4	22	F	Glioblastoma	Histopathology	
5	52	F	Glioblastoma	Histopathology	
6	46	F	Glioblastoma	Histopathology	
7	60	М	Glioblastoma	Histopathology	
8	61	М	Glioblastoma	Histopathology	
9	59	F	Glioblastoma	Histopathology	
10	58	F	Glioblastoma	Histopathology	
11	57	М	Glioblastoma	Histopathology	
12	38	F	Glioblastoma	Histopathology	
13	33	F	Glioblastoma	Histopathology	
14	55	М	Glioblastoma	Histopathology	
15	40	М	Anaplastic astrocytoma	Histopathology	
16	6	М	Anaplastic astrocytoma	Histopathology	
17	54	М	Anaplastic astrocytoma	Histopathology	
18	25	М	Anaplastic astrocytoma	Histopathology	
19	65	М	Anaplastic astrocytoma	Histopathology	
20	15	М	Anaplastic astrocytoma	Histopathology	
21	59	М	Anaplastic astrocytoma	Histopathology	
22	59	М	Tumefactive demyelination	Imaging resolution	
23	10	М	Tumefactive demyelination	Histopathology	
24	38	F	Tumefactive demyelination	Oligoclonal bands, \uparrow CSF IgG index	
25	48	М	Tumefactive demyelination	Imaging resolution	
26	27	М	Tumefactive demyelination	Histopathology	
27	36	М	Tumefactive demyelination	Histopathology	
28	29	F	Tumefactive demyelination	Imaging resolution	
29	35	F	Tumefactive demyelination	Histopathology	
30	33	М	Tumefactive demyelination	↑ CSF IgG index	
31	44	М	Tumefactive demyelination	Imaging resolution	
32	42	М	Tumefactive demyelination	Histopathology	
33	45	М	Tumefactive demyelination	Imaging resolution	
34	65	F	Tumefactive demyelination	Imaging resolution	
35	14	М	Tumefactive demyelination	Histopathology	

Note:—IgG indicates immunoglobulin G; WHO, World Health Organization.

^a The total number of TDLs studied was 14. The total number of glioblastomas (WHO grade IV) was 14. The total number of anaplastic astrocytomas (WHO Grade III) was 7 (12 females, 23 males; mean age, 42.4 years; age range, 6–65 years).

On-line Table 2: Protocol for DTI and DSC perfusion-weighted imaging

Parameter	DTI	DSC Perfusion Imaging	
Technique	Spin-echo, EPI	T2*WI gradient-echo, EPI	
TR (ms)	3500	1800	
TE (ms)	105	35	
NEX	1	1	
FOV (mm)	230 imes 230	230 × 230	
Matrix	192 × 192	128 × 128	
Section thickness (mm)	5	5	
Intersection spacing (mm)	1.5	1.5	
Other parameters	30 Noncollinear directions	Precontrast baseline: first 10 acquisitions prior to contrast administration	
	B value = 0 and 1000 s/mm ²	IV contrast, Gd-DTPA	
		Dose = 0.1 mmol/kg	
		Flow rate $= 5 \text{ mL/s}$	
		Saline flush = 20 mL of saline	

On-line Table 3: Conventional imaging features of high-grade glioma and t	umefactive demyelination
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	HGG	TDL		
Imaging Features	(% of Pts)	(% of Pts)	P Value ^a	Reliability ^b
Lesion size				0.95
2–5 cm	10 (47.6)	9 (64.3)	.332	
>5 cm	11 (52.4)	5 (35.7)		
TI signal intensity				0.68
Isointense	2 (9.5)	3 (21.4)	.029 ^c	
Hypointense	11 (52.4)	11 (78.6)		
Heterogeneous	8 (38.1)	O (O)		
Intralesional T2 intensity				0.87
Hyperintense	6 (28.6)	7 (50)	.199	
Heterogeneous	15 (71.4)	7 (50)		
T2 hypointense rim				0.90
Present	7 (33.3)	10 (71.4)	.027 ^c	
Absent	14 (66.7)	4 (28.6)		
Mass effect				0.72
Mild	5 (23.8)	8 (57.1)	.05	
Moderate	11 (52.4)	6 (42.9)		
Severe	5 (23.8)	0		
Edema				0.68
Mild	6 (28.6)	5 (35.7)	.303	
Moderate	7 (33.3)	7 (50)		
Severe	8 (38.1)	2 (14.3)		
Enhancement				0.75
Rim	1 (4.7)	7 (50)	.02 ^c	
Heterogeneous	20 (95.3)	7 (50)		

Note:—Pts indicates patients.

^a *P* value of χ^2 test for statistical significance.

^b Cohen κ coefficient for interrater agreement.

^c Significant.



ON-LINE FIG 1. Postcontrast TI volumetric interpolated brain examination, trace, and the CBV map of DSC perfusion of a patient with HGG. Multiple ROIs are placed on the enhancing margin, which shows hyperintensity on trace image as shown in *B*. ROIs are placed on areas of maximum perfusion within the lesion and contralateral normal-appearing white matter as presented in *C*.



ON-LINE FIG 2. A-E, Axial TI, T2, FLAIR, contrast-enhanced TI, and the CBV map of DSC perfusion of a patient with TDL. The lesion in the left occipitotemporal region with involvement of splenium of corpus callosum shows hypointense signal on TI and heterogeneous signal on T2 and FLAIR, with areas of enhancement on contrast-enhanced TI and increased perfusion on DSC perfusion. *F*-*J*, DWI, ADC, and eigenvalue images (λ_1 , λ_2 , λ_3) of the same patient. Images show focal areas of restricted diffusion on DWI and ADC.



ON-LINE FIG 3. Follow-up images of a patient with TDL in On-line Fig 2, 3 months' posttherapy: axial TI, T2, FLAIR, contrast-enhanced TI, and the CBV map of DSC perfusion (A–E). Note volume loss with ex vacuo dilation of the occipital horn of the left lateral ventricle on TI and periventricular white matter hyperintensity on T2 and FLAIR, with no contrast enhancement or elevated perfusion.



ON-LINE FIG 4. A–E, Axial TI, T2, FLAIR, contrast-enhanced TI, and a CBV map of DSC perfusion of a patient with glioblastoma. The right occipitotemporal region shows a TI hypointense lesion with heterogeneous signal intensity on T2 and FLAIR and irregular rim enhancement on contrast-enhanced TI with mild increased rCBV in the periphery on DSC perfusion. *F–J*, DWI, ADC, and eigenvalue images (λ_1 , λ_2 , λ_3) of the same patient, showing heterogeneous signal intensity on DWI and ADC.