

Supplementary online content**Supplementary Tables**

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Table S1. Baseline characteristics of the study population

Variable	All patients (N = 365)	DBS group (N = 37)	Control group (N = 328)	P value
Age, y, median (IQR)	49.0 (35.0-58.0)	45.0 (35.0-58.0)	49.0 (35.0-58.0)	0.431
Sex (%)				0.349
Male	253 (69.3)	23 (62.2)	230 (70.1)	
Female	112 (30.7)	14 (37.8)	98 (29.9)	
Pathogeny (%)				0.080
Anoxia	65 (17.8)	10 (27.0)	55 (16.8)	
Stroke	164 (44.9)	19 (51.4)	145 (44.2)	
Trauma	136 (37.3)	8 (21.6)	128 (39.0)	
Duration at admission (%)				<0.00 1
3-5 months	65 (17.8)	25 (67.6)	40 (12.2)	
6-11 months	57 (15.6)	8 (21.6)	49 (14.9)	
≥12 months	243 (66.6)	4 (10.8)	239 (72.9)	
State of consciousness (%)				0.856
MCS	123 (33.7)	13 (35.1)	110 (33.5)	
VS/UWS	242 (66.3)	24 (64.9)	218 (66.5)	

Abbreviations: DBS, deep brain stimulation; MCS, minimally consciousness state; VS/UWS, vegetative state/unresponsive wakefulness syndrome.

*P < 0.05, significant difference

Table S2. Demographics of DoCs patients received DBS treatment

Variables	State of consciousness		P value
	MCS (N = 13)	VS/UWS (N = 24)	
Age, y, median (IQR)	35.0 (26.0 - 48.5)	49.5 (41.0 - 59.8)	0.002
Sex (%)			0.288
Male	10 (76.9)	13 (54.2)	
Female	3 (23.1)	11 (45.8)	
Pathogeny (%)			0.025
Anoxia	3 (23.1)	7 (29.2)	
Stroke	4 (30.8)	15 (62.5)	
Trauma	6 (46.2)	2 (8.3)	
Duration at admission (%)			0.002
3-5	4 (30.8)	21 (87.5)	
6-11	6 (46.2)	2 (8.3)	
≥12	3 (23.1)	1 (4.2)	
Recommendation criteria (%)			0.098
Weakly recommended	5 (38.5)	16 (66.7)	
Highly recommended	8 (61.5)	8 (33.3)	

DoCs, disorders of consciousness; DBS, deep brain stimulation; MCS, minimally consciousness state; VS/UWS, vegetative state/unresponsive wakefulness state

*P < 0.05, significant difference

Table S3. Characteristics of DBS patients according to 1 year outcome

Variables (%)	Therapeutic effect		P value
	Positive (N = 12)	Unchanged or death (N = 25)	
Age, y, mean \pm SD	33.9 \pm 12.9	50.3 \pm 10.3	<0.001
Sex (%)			0.265
Male	9 (75.0)	14 (56.0)	
Female	3 (25.0)	11 (44.0)	
State of consciousness (%)			<0.001
MCS	10 (83.3)	3 (12.0)	
VS/UWS	2 (16.7)	22 (88.0)	
Pathogeny (%)			0.010
Anoxia	1 (8.3)	9 (36.0)	
Stroke	5 (41.7)	14 (56.0)	
Trauma	6 (50.0)	2 (8.0)	
Duration (%)			0.286
3-5	6 (50.0)	19 (76.0)	
6-11	4 (33.3)	4 (16.0)	
\geq 12	2 (16.7)	2 (8.0)	
Recommendation criteria (%)			0.012
Weakly recommended	3 (25.0)	18 (72.0)	
Highly recommended	9 (75.0)	7 (28.0)	

DBS, deep brain stimulation; MCS, minimally consciousness state; VS/UWS, vegetative state/unresponsive wakefulness state.

*P < 0.05, significant difference

Table S4. Emergence from unconsciousness at 1 year in DBS patients with different diagnosis

Diagnosis	MCS (N = 13)	VS/UWS (N = 24)	X ²	P value
GOS (%)				
1	0 (0.0)	1 (4.2)	20.8	<0.001
2	2 (15.4)	20 (83.3)		
3	5 (38.5)	3 (12.5)		
4	3 (23.1)	0 (0.0)		
5	3 (23.1)	0 (0.0)		
Emergence from unconsciousness (%)			15.7	<0.001
Emergence	11 (84.6)	3 (12.5)	1	
Nonemergence	2 (15.4)	21 (87.5)		

DBS, deep brain stimulation; MCS, minimally consciousness state; VS/UWS, vegetative state/unresponsive wakefulness state; GOS, glasgow outcome scale..

*P < 0.05, significant different.

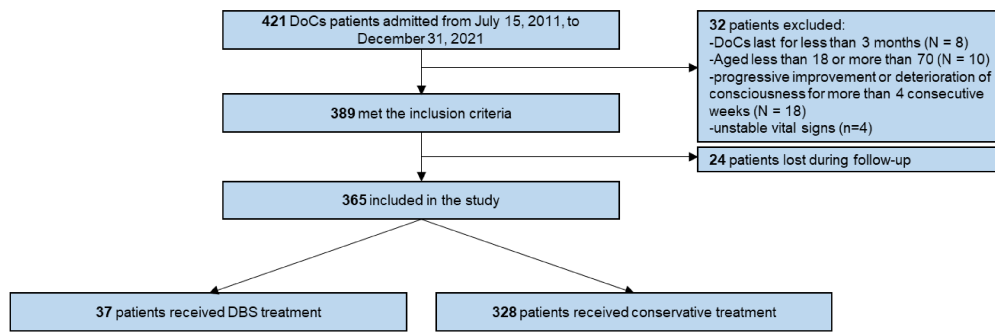


Fig S1. Flowchart of the study participants. DoCs, disorders of consciousness; DBS, deep brain stimulation.

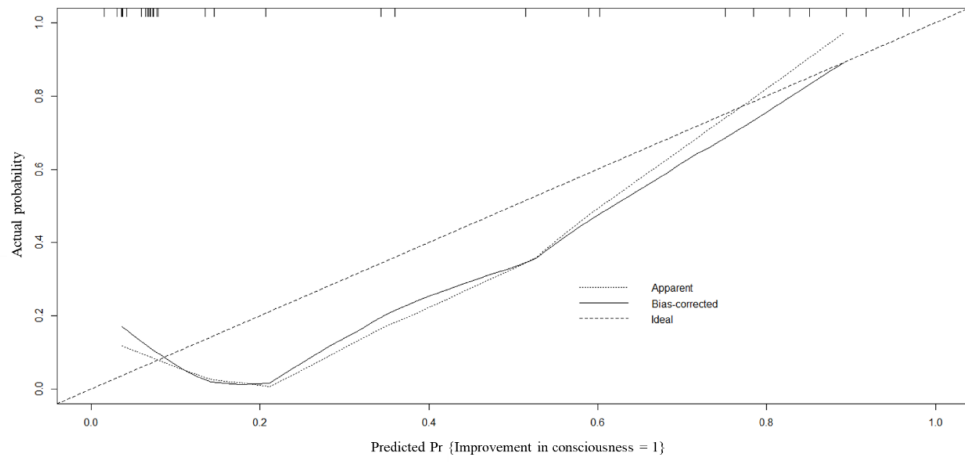


Fig S2. Hosmer–Lemeshow goodness-of-fit test of the nomogram

