

Supplementary material

Available data about DBS settings and lead position are provided below:

Patient 1I	
Year of DBS	2008
Current DBS system	Medtronic Activa RC
Initial settings	Right GPi Contact 1-, 2.1 V, 120 μ s, 130 Hz Left GPi Contact 9-, 2.1 V, 120 μ s, 130 Hz
Last settings	Right GPi Contact 1-, 3.9 V, 120 μ s, 130 Hz Left GPi Contact 9-, 2.8 V, 120 μ s, 130 Hz

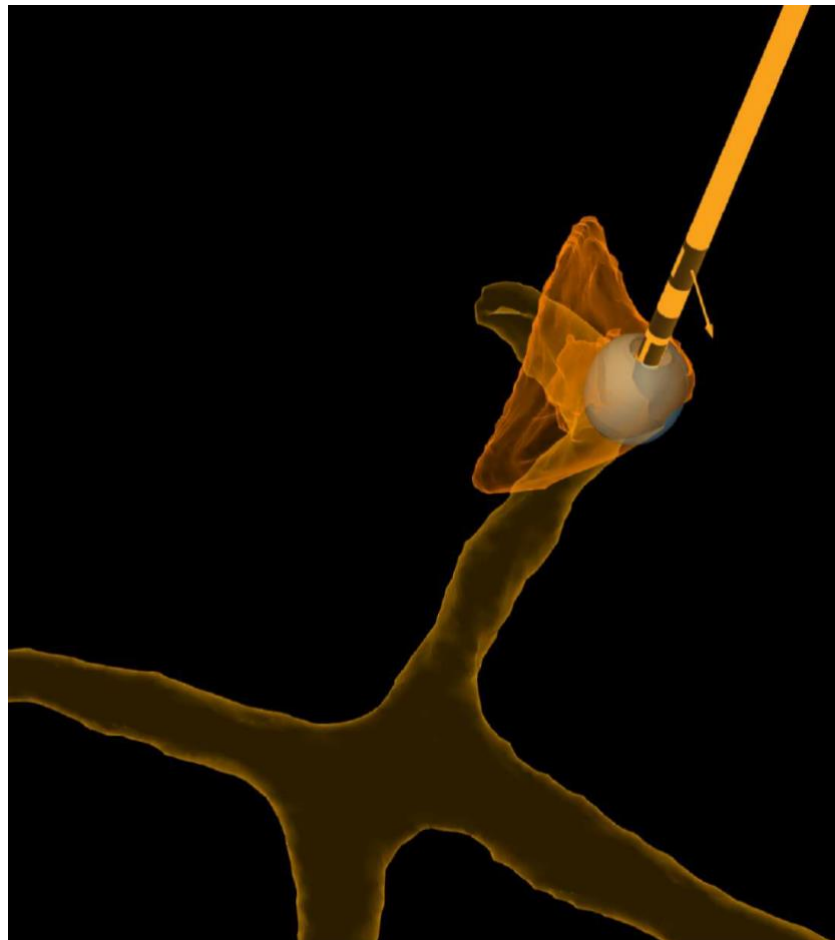
Patient 2I	
Year of DBS	2005
Current DBS system	Medtronic Activa RC
Initial settings	Right GPi Contact 0/1-, 3.2 V, 90 μ s, 180 Hz Left GPi Contact 4-/5-, 2.2 V, 90 μ s, 180 Hz
Last settings	Right GPi Contact 1-, 3 V, 90 μ s, 130 Hz Left GPi Contact 8-/9-, 4.5 V, 90 μ s, 130 Hz

Patient 3I	
Year of DBS	2020
Current DBS system	Boston Scientific - directional
Initial settings	Right GPi Contact L1-/L2-, 2.3 mA, 60 μ s, 130 Hz Left GPi Contact 1-/4-, 2.3 mA, 60 μ s, 130 Hz
Last settings	Right GPi Contact L1-/L2, 6.2 mA, 60 μ s, 130 Hz Left GPi Contact 1-/4-, 5 mA, 60 μ s, 130 Hz

Patient 4I	
Year of DBS	2006
Last DBS system	Medtronic Activa RC
Initial settings	Right GPi Contact 0/1-, 3.2 V, 120 μ s, 130 Hz Left GPi Contact 4-/5-, 3.2 V, 120 μ s, 130 Hz
Last settings	Right GPi Contact 3-, 2.2 V, 90 μ s, 100 Hz Left GPi Contact 11-, 2.2 V, 90 μ s, 100 Hz

Patient 5I	
Year of DBS	2025
Last DBS system	Boston Scientific
Initial settings	Right GPi Contact L2, 2 mA, 120 μ s, 130 Hz Left GPi Contact L1/L2, 1.5 mA, 90 μ s, 130 Hz
Last settings	Right GPi Contact L2, 3 A, 90 μ s, 130 Hz Left GPi Contact L1/L2, 2 mA, 90 μ s, 130 Hz

The figure below shows an exemplary electrode positioned in the posterolateral portion of the left GPi in patient 5I (provided with the kind permission of Brain Lab). Left GPi (orange) is represented in spatial relation with the optic radiation (dark yellow).



Patient 1V	
Year of DBS	2022
Current DBS system	SenSight Medtronic
Stereotactic coordinates (AC-PC reference in mm)	GPi L: x = 15.14; y = 4.98; z = -1.84 GPi R: x = 15.0; y = 4.64; z = -2.36
Initial settings	Both sides Contact 1/9, 1.5 mA, 120 μ s, 130 Hz
Last settings	Both sides Contact 1/9, 2 mA, 120 μ s, 130 Hz

Patient 2V	
Year of DBS	2021
Current DBS system	Medtronic Activa RC
Stereotactic coordinates (AC-PC reference in mm)	GPi L: X: -17.57 Y: 4.0 Z: 1.15 GPi R: X: 18.05 Y: 2.5 Z: 1.15
Initial settings	Both sides Contact 2/9, 1.5 V, 120 μ s, 130 Hz
Last settings	Both sides Contact 1/8, 3 V, 120 μ s, 130 Hz

Patient 3V	
Year of DBS	2017
Current DBS system	Medtronic Activa RC
Stereotactic coordinates (AC-PC reference in mm)	GPI L: x = -17.28; y = 3.0; z = 1.05 GPI R: x = 17.8; y = 3.8; z = 1.06
Initial settings	Both sides Contact 1/9, 1.5 V, 120 μ s, 130 Hz
Last settings	Both sides Contact 1/9, 2 V, 120 μ s, 130 Hz

Patient 4V	
Year of DBS	2014
Current DBS system	Medtronic Activa RC
Stereotactic coordinates (AC-PC reference in mm)	GPI L: x = -16.5; y = 2.04; z = -1.52 GPI R: x = 16.5; y = 2.04; z = -1.52
Initial settings	Both sides Contact 1/9, 2.5 V, 120 μ s, 130 Hz
Last settings	Both sides Contact 1/9, 3 V, 120 μ s, 130 Hz