

Supplementary Material 1. Voiding Initiation Network

The Voiding Initiation Network was identified from the group averaged functional magnetic resonance imaging bold oxygen level dependent (BOLD) map by using a threshold of $t=3.5$. This threshold was chosen as a compromise to include voxels in all pertinent brain regions but at the same time to limit the total number of voxels ($n=227$) suitable for conducting the machine-learning analysis.

Table S1. Location of voxels identified to be part of the Voiding Initiation Network in multiple sclerosis (coordinates R: right, A: anterior, I: inferior). Strength of each voxel (defined as sum of edge weights) for spontaneous voiding (V) and voiding dysfunction (VD) is given as well in arbitrary units. Relative importance for each machine learning model (RF, NNET, GLM, and PLS) is given in arbitrary units.

Region	R (mm)	A (mm)	I (mm)	RF	NNET	GLM	PLS	V	VD
Left cerebellum	22.5	47.5	-52.5	4.5	13.3	63.7	27.5	-7.8	-5.6
Left cerebellum	22.5	27.5	-47.5	10.7	30.6	80.5	2.6	-5.9	-7.9
Dorsal vagal motor nuclei	-2.5	32.5	-47.5	60.5	4.9	100.0	73.8	-9.4	-4.2
Left cerebellar tonsil	27.5	37.5	-47.5	6.5	21.9	79.9	25.4	-10.3	-9.0
Left cerebellar tonsil	32.5	37.5	-47.5	17.8	34.0	84.8	27.1	-10.3	-9.4
Dorsal vagal motor nuclei	2.5	37.5	-42.5	44.3	72.6	57.6	74.7	-11.1	-4.6
Left cerebellar tonsil	42.5	37.5	-42.5	6.7	9.8	53.4	21.5	-4.4	-5.5
Left cerebellar tonsil	37.5	42.5	-42.5	8.4	17.7	0.0	17.6	-6.4	-6.5
Right cerebellar tonsil	-32.5	47.5	-42.5	9.8	0.8	79.4	23.4	-1.3	-5.7
Right cerebellar tonsil	-32.5	52.5	-42.5	14.8	3.4	89.5	15.7	-4.4	-7.6
Left cerebellar tonsil	27.5	27.5	-37.5	26.3	44.2	80.3	9.0	-5.3	-8.4
Dorsal vagal motor nuclei	2.5	37.5	-37.5	22.4	28.1	65.9	45.7	-8.5	-4.8
Right cerebellar tonsil	-32.5	52.5	-37.5	10.7	35.1	66.1	11.5	-6.6	-6.4
Right cerebellar tonsil	-27.5	62.5	-37.5	4.2	0.0	0.0	29.4	-10.2	-6.3
Right inferior semi-lunar lobule	-12.5	62.5	-37.5	47.7	8.5	0.0	74.2	-12.2	-4.3

Right inferior semi-lunar lobule	-7.5	62.5	-37.5	29.3	14.2	0.0	44.6	-11.7	-3.5
Right culmen	-17.5	32.5	-32.5	22.4	21.5	0.0	54.1	-7.5	-2.2
Right uvula	-7.5	62.5	-32.5	100.0	2.9	0.0	67.7	-14.7	-5.0
Left uncus	7.5	2.5	-27.5	23.5	59.1	0.0	18.6	-1.5	-5.8
Dorsolateral tegmental nucleus	7.5	27.5	-27.5	28.5	38.9	0.0	36.8	-10.1	-7.2
Left midbrain	12.5	27.5	-27.5	3.7	62.1	0.0	4.5	-5.2	-6.2
Right culmen	-27.5	37.5	-27.5	15.1	19.9	0.0	31.1	-9.5	-2.8
Right pyramis	-22.5	57.5	-27.5	50.7	31.1	0.0	59.7	-11.2	-3.7
Right uncus	-7.5	7.5	-22.5	32.8	32.7	0.0	3.1	-3.7	-1.3
Left uncus	7.5	7.5	-22.5	16.8	26.9	0.0	26.3	-0.9	-0.6
Anterior pons	-2.5	17.5	-22.5	29.7	9.5	0.0	16.1	-1.9	-3.4
Anterior pons	2.5	17.5	-22.5	27.5	23.5	0.0	24.1	-5.3	-1.5
Pontine storage center	2.5	22.5	-22.5	28.9	3.6	0.0	39.9	-7.0	-3.6
Left parahippocampal gyrus	22.5	22.5	-22.5	20.5	31.7	0.0	2.2	-0.5	-5.6
Pontine micturition center	2.5	27.5	-22.5	11.0	14.1	0.0	38.4	-9.6	-6.6
Right culmen	-27.5	32.5	-22.5	22.5	46.3	0.0	7.7	-8.2	-5.4
Left culmen	37.5	32.5	-22.5	34.5	67.8	0.0	63.7	-0.8	-7.8
Left fusiform gyrus	42.5	32.5	-22.5	47.2	96.3	0.0	84.6	1.3	-8.7
Right culmen	-32.5	37.5	-22.5	22.2	8.4	0.0	35.7	-9.0	-4.4
Right culmen	-27.5	37.5	-22.5	42.8	0.6	0.0	49.2	-10.7	-4.4
Right culmen	-32.5	42.5	-22.5	50.7	30.9	0.0	51.7	-10.1	-3.5
Right culmen	-27.5	42.5	-22.5	46.2	3.5	0.0	55.3	-9.6	-2.5
Right culmen	-32.5	47.5	-22.5	17.5	0.2	0.0	24.6	-9.0	-5.0
Right culmen	-27.5	47.5	-22.5	35.6	21.6	0.0	45.6	-9.2	-2.9
Right culmen	-22.5	47.5	-22.5	52.5	29.0	0.0	51.5	-12.0	-2.7
Right culmen	-17.5	47.5	-22.5	57.2	8.7	0.0	39.6	-11.1	-3.7
Right dentate	-17.5	52.5	-22.5	26.5	30.4	0.0	35.8	-10.3	-3.5
Right nodule	-7.5	57.5	-22.5	33.1	20.8	0.0	48.6	-10.5	-3.0
Left substantia nigra	2.5	17.5	-17.5	42.8	11.3	0.0	34.9	-4.2	-0.6
Right substantia nigra	-2.5	22.5	-17.5	21.3	22.3	0.0	44.4	-7.1	-3.7
Left substantia nigra	2.5	22.5	-17.5	13.4	12.6	0.0	58.0	-8.2	-3.2
Right parahippocampal gyrus	-22.5	27.5	-17.5	37.4	8.4	0.0	26.9	-8.0	-2.9
Right culmen	-22.5	32.5	-17.5	20.7	36.6	0.0	47.4	-7.4	-0.4
Left fusiform gyrus	42.5	32.5	-17.5	10.3	56.5	0.0	31.8	-2.8	-6.5

Left fusiform gyrus	42.5	37.5	-17.5	11.2	65.2	0.0	26.4	-3.6	-4.1
Right culmen	-17.5	52.5	-17.5	9.5	2.8	0.0	32.8	-12.2	-7.1
Right culmen	-7.5	52.5	-17.5	28.6	20.3	0.0	50.3	-12.1	-5.8
Right culmen	-2.5	52.5	-17.5	65.6	6.7	0.0	24.3	-11.5	-6.7
Right declive	-12.5	57.5	-17.5	32.0	20.1	0.0	52.6	-10.5	-3.0
Right culmen	-7.5	57.5	-17.5	25.0	14.8	0.0	43.1	-10.6	-3.8
Right subcallosal gyrus	-22.5	-7.5	-12.5	27.6	5.2	0.0	21.7	-0.7	0.1
Right subcallosal gyrus	-22.5	-2.5	-12.5	27.5	41.6	0.0	14.3	-4.5	-0.3
Left substantia nigra`	2.5	17.5	-12.5	25.8	20.9	0.0	25.5	-1.6	1.5
Left substantia nigra	7.5	17.5	-12.5	24.2	22.9	0.0	30.2	-3.5	1.2
Periaqueductal gray	-2.5	22.5	-12.5	26.4	2.8	0.0	61.9	-5.6	-1.0
Ventral tegmental area	2.5	22.5	-12.5	5.3	5.8	0.0	52.9	-5.8	-2.0
Ventral tegmental area	7.5	22.5	-12.5	10.2	28.5	0.0	29.8	-5.4	-2.9
Left middle frontal gyrus	37.5	-52.5	-7.5	6.7	23.2	0.0	26.8	4.8	-3.1
Left middle frontal gyrus	37.5	-47.5	-7.5	20.8	20.7	0.0	21.5	3.9	-2.6
Right subcallosal gyrus	-27.5	-7.5	-7.5	11.1	20.1	0.0	30.6	3.6	1.5
Right substantia nigra	-7.5	17.5	-7.5	26.9	42.7	0.0	38.4	-1.6	0.9
Left substantia nigra	2.5	17.5	-7.5	18.3	52.8	0.0	37.7	-3.7	1.5
Left substantia nigra	7.5	17.5	-7.5	66.0	76.3	0.0	67.2	-5.1	1.9
Left substantia nigra	12.5	17.5	-7.5	23.2	15.3	0.0	17.6	-3.2	-2.1
Periaqueductal gray	-2.5	22.5	-7.5	60.3	72.5	0.0	52.5	-6.1	-1.6
Left red nucleus	2.5	22.5	-7.5	34.0	53.3	0.0	31.8	-6.3	-2.6
Left thalamus	7.5	22.5	-7.5	21.2	21.1	0.0	4.0	-4.4	-3.0
Right hippocampus	-32.5	27.5	-7.5	15.0	44.5	0.0	34.8	-2.6	-0.5
Right fusiform gyrus	-42.5	42.5	-7.5	33.9	49.9	0.0	59.8	-2.4	2.7
Left middle frontal gyrus	47.5	-37.5	-2.5	13.2	0.1	0.0	62.7	7.7	-1.0
Left inferior frontal gyrus	42.5	-22.5	-2.5	18.6	17.8	0.0	16.7	4.5	2.4
Left red nucleus	7.5	17.5	-2.5	12.0	74.2	0.0	28.6	-0.6	0.3
Right red nucleus	-7.5	22.5	-2.5	29.3	7.6	0.0	18.9	-4.4	-1.1
Left red nucleus	7.5	22.5	-2.5	24.0	14.2	0.0	19.5	-1.8	-2.1
Right caudate	-32.5	27.5	-2.5	39.9	62.5	0.0	7.9	0.8	-0.9
Left middle temporal gyrus	52.5	47.5	-2.5	26.0	2.2	0.0	3.0	2.1	1.9
Right parahippocampal gyrus	-37.5	52.5	-2.5	50.5	5.0	0.0	41.3	-4.0	1.9
Left inferior frontal gyrus	47.5	-37.5	2.5	20.3	8.3	0.0	63.9	8.3	0.8

Left inferior frontal gyrus	47.5	-32.5	2.5	33.0	38.6	0.0	29.8	6.1	-0.9
Left inferior frontal gyrus	47.5	-27.5	2.5	19.2	66.1	0.0	7.1	2.3	-1.1
Left inferior frontal gyrus	37.5	-22.5	2.5	14.8	19.0	0.0	38.9	10.5	6.1
Right inferior frontal gyrus	-47.5	-12.5	2.5	10.0	6.2	0.0	32.5	6.3	0.9
Right insula	-37.5	-12.5	2.5	16.5	7.3	0.0	14.2	6.3	2.7
Right insula	-37.5	-7.5	2.5	24.7	16.2	0.0	13.2	7.5	4.2
Right insula	-37.5	-2.5	2.5	49.5	6.8	0.0	9.5	6.4	5.1
Left thalamus	12.5	17.5	2.5	32.0	29.2	0.0	24.4	3.7	1.9
Right caudate	-32.5	32.5	2.5	0.0	10.0	0.0	14.3	-1.4	-2.6
Right parahippocampal gyrus	-17.5	42.5	2.5	35.7	70.5	0.0	51.8	-7.0	1.2
Left middle temporal gyrus	42.5	47.5	2.5	36.5	32.0	0.0	40.4	-3.8	1.4
Left middle frontal gyrus	32.5	-52.5	7.5	8.8	39.5	0.0	34.1	12.1	4.7
Right inferior frontal gyrus	-52.5	-17.5	7.5	19.5	39.0	0.0	49.8	6.6	0.5
Right precentral gyrus	-42.5	-7.5	7.5	30.1	2.9	0.0	34.7	7.3	3.3
Right insula	-37.5	7.5	7.5	18.4	46.3	0.0	45.9	6.6	2.6
Left thalamus	17.5	12.5	7.5	23.7	53.9	0.0	19.9	5.8	8.9
Left thalamus	12.5	17.5	7.5	21.6	32.7	0.0	58.1	5.0	1.4
Left thalamus	12.5	22.5	7.5	4.0	4.2	0.0	11.9	0.3	1.6
Right thalamus	-17.5	27.5	7.5	10.0	3.9	0.0	9.0	1.9	1.1
Right precentral gyrus	-47.5	-2.5	12.5	19.4	11.7	0.0	44.3	11.0	5.4
Left thalamus	17.5	12.5	12.5	15.8	25.0	0.0	0.0	6.9	8.4
Left thalamus	12.5	17.5	12.5	39.5	48.7	0.0	42.6	3.6	2.1
Left thalamus	17.5	17.5	12.5	10.1	3.4	0.0	12.6	5.2	5.4
Right thalamus	-12.5	22.5	12.5	12.2	25.7	0.0	19.3	0.5	-1.0
Left inferior frontal gyrus	52.5	-7.5	17.5	51.7	45.8	0.0	94.9	13.7	7.1
Left precentral gyrus	57.5	-2.5	17.5	16.9	40.0	0.0	56.8	9.1	2.8
Left thalamus	12.5	17.5	17.5	14.4	20.5	0.0	10.0	3.6	5.2
Left middle frontal gyrus	42.5	-32.5	22.5	15.0	1.0	0.0	40.2	12.6	4.8
Left middle frontal gyrus	37.5	-27.5	22.5	37.5	11.5	0.0	30.7	12.7	7.2
Left inferior frontal gyrus	47.5	-12.5	22.5	38.3	9.3	0.0	67.5	14.2	5.4
Left inferior frontal gyrus	52.5	-7.5	22.5	54.6	40.0	0.0	94.5	13.4	4.2
Right inferior frontal gyrus	-42.5	-2.5	22.5	17.3	48.2	0.0	13.4	7.3	7.8
Right postcentral gyrus	-47.5	22.5	22.5	10.7	4.3	0.0	44.3	0.8	5.4
Left cingulate gyrus	12.5	37.5	22.5	60.8	41.2	0.0	65.6	-5.4	2.5

Left insula	32.5	42.5	22.5	34.3	68.3	0.0	52.1	-4.7	4.7
Left superior frontal gyrus	22.5	-52.5	27.5	13.8	5.7	0.0	39.1	6.7	1.1
Left middle frontal gyrus	32.5	-27.5	27.5	3.1	35.0	0.0	33.2	14.0	7.5
Left middle frontal gyrus	32.5	-22.5	27.5	27.9	29.6	0.0	38.3	14.2	7.3
Left middle frontal gyrus	32.5	-17.5	27.5	35.3	17.9	0.0	45.9	14.4	7.8
Left middle frontal gyrus	47.5	-12.5	27.5	24.7	19.4	0.0	86.9	12.9	3.7
Left inferior frontal gyrus	42.5	-2.5	27.5	64.9	11.2	0.0	47.0	14.7	9.7
Left inferior frontal gyrus	47.5	-2.5	27.5	38.7	40.6	0.0	65.4	13.2	9.2
Left precentral gyrus	42.5	2.5	27.5	10.7	20.0	0.0	14.5	13.7	10.3
Right inferior parietal lobule	-47.5	22.5	27.5	41.3	35.7	0.0	1.3	6.2	7.7
Left inferior parietal lobule	32.5	22.5	27.5	65.9	55.9	0.0	52.6	2.7	8.1
Right inferior parietal lobule	-52.5	27.5	27.5	23.0	51.3	0.0	5.2	5.4	6.7
Right inferior parietal lobule	-47.5	27.5	27.5	14.3	70.3	0.0	14.9	4.3	8.1
Left inferior parietal lobule	32.5	27.5	27.5	49.5	80.3	0.0	77.6	-0.1	8.3
Right inferior parietal lobule	-52.5	32.5	27.5	7.1	32.2	0.0	1.8	2.5	4.9
Right inferior parietal lobule	-47.5	32.5	27.5	5.7	9.4	0.0	6.1	1.6	4.4
Right inferior parietal lobule	-42.5	32.5	27.5	16.7	22.3	0.0	47.5	0.2	7.0
Left cingulate gyrus	12.5	32.5	27.5	48.6	68.5	0.0	74.6	-4.2	2.4
Left inferior parietal lobule	57.5	32.5	27.5	20.7	17.7	0.0	16.6	-0.1	2.1
Left cingulate gyrus	17.5	37.5	27.5	94.6	90.4	0.0	73.4	-5.9	2.6
Left cingulate gyrus	22.5	42.5	27.5	30.7	99.7	0.0	61.1	-4.2	4.9
Left superior frontal gyrus	27.5	-42.5	32.5	59.8	49.5	0.0	58.1	7.7	0.1
Left superior frontal gyrus	27.5	-37.5	32.5	69.6	39.1	0.0	73.3	10.6	1.1
Left superior frontal gyrus	32.5	-37.5	32.5	22.3	51.9	0.0	73.8	8.2	0.2
Left superior frontal gyrus	27.5	-32.5	32.5	23.7	8.0	0.0	39.1	10.5	6.6
Left middle frontal gyrus	32.5	-32.5	32.5	44.8	13.5	0.0	43.3	9.6	5.8
Left middle frontal gyrus	32.5	-12.5	32.5	38.0	8.4	0.0	54.0	14.1	5.4
Left middle frontal gyrus	37.5	-12.5	32.5	92.9	26.0	0.0	61.8	12.4	4.1
Left middle frontal gyrus	42.5	-12.5	32.5	53.9	57.7	0.0	97.3	12.7	2.6
Left inferior frontal gyrus	37.5	-2.5	32.5	10.1	14.9	0.0	25.8	10.8	7.3
Left inferior frontal gyrus	42.5	-2.5	32.5	58.1	40.6	0.0	79.2	13.9	5.7
Left precentral gyrus	37.5	2.5	32.5	11.0	24.6	0.0	29.6	13.1	10.0
Left precentral gyrus	42.5	2.5	32.5	18.4	15.7	0.0	32.2	12.7	9.8
Left postcentral gyrus'	32.5	17.5	32.5	6.7	24.3	0.0	14.1	7.4	8.7

Left inferior parietal lobule	57.5	27.5	32.5	36.5	14.4	0.0	3.4	4.7	5.0
Left cuneus	2.5	77.5	32.5	33.4	62.3	0.0	25.5	-7.8	-4.1
Left cuneus	12.5	82.5	32.5	35.3	9.0	0.0	51.6	-9.5	1.8
Left middle frontal gyrus	22.5	-37.5	37.5	45.5	34.2	0.0	23.6	9.8	4.4
Left middle frontal gyrus	27.5	-32.5	37.5	41.3	17.7	0.0	37.1	9.5	1.1
Left middle frontal gyrus	32.5	-32.5	37.5	62.7	33.9	0.0	41.6	9.3	1.2
Left middle frontal gyrus	27.5	-27.5	37.5	47.3	9.5	0.0	35.8	12.5	4.0
Left middle frontal gyrus	32.5	-27.5	37.5	55.7	14.3	0.0	51.6	12.4	3.6
Left cingulate gyrus	7.5	-22.5	37.5	73.7	43.7	0.0	65.5	13.0	6.4
Left cingulate gyrus	17.5	-17.5	37.5	29.3	47.8	0.0	19.6	14.8	12.9
Left cingulate gyrus	2.5	-12.5	37.5	12.2	8.3	0.0	56.6	8.8	3.7
Left cingulate gyrus	7.5	-12.5	37.5	31.2	13.9	0.0	53.2	13.0	8.8
Left precentral gyrus	37.5	2.5	37.5	16.5	10.7	0.0	43.5	14.5	6.8
Left precentral gyrus	42.5	2.5	37.5	13.1	10.3	0.0	42.9	12.1	6.7
Left cingulate gyrus	22.5	17.5	37.5	35.4	66.7	0.0	38.2	6.2	11.4
Left cingulate gyrus	22.5	22.5	37.5	47.6	54.5	0.0	63.4	3.2	9.1
Left supramarginal gyrus	57.5	42.5	37.5	7.2	18.2	0.0	5.6	-1.4	-0.7
Left cingulate gyrus	7.5	-22.5	42.5	64.4	47.6	0.0	86.0	13.8	6.0
Left middle frontal gyrus	32.5	-22.5	42.5	45.8	38.6	0.0	54.5	11.7	5.2
Right cingulate gyrus	-7.5	-17.5	42.5	46.3	62.9	0.0	74.3	10.0	3.3
Left cingulate gyrus	2.5	-12.5	42.5	47.8	77.9	0.0	50.6	5.7	2.5
Left cingulate gyrus	7.5	-12.5	42.5	86.1	54.4	0.0	63.0	11.8	7.4
Right cingulate gyrus	-7.5	-7.5	42.5	21.5	23.4	0.0	27.7	8.3	6.4
Right cingulate gyrus	-2.5	-7.5	42.5	38.4	3.1	0.0	19.9	2.9	3.6
Left cingulate gyrus	2.5	-7.5	42.5	43.6	52.0	0.0	80.1	9.0	2.9
Left cingulate gyrus	7.5	-7.5	42.5	12.5	48.2	0.0	62.1	12.0	7.3
Left precentral gyrus	42.5	2.5	42.5	23.1	4.8	0.0	17.2	8.4	4.5
Left middle frontal gyrus	32.5	7.5	42.5	24.8	2.5	0.0	56.6	14.7	9.5
Left precentral gyrus	37.5	7.5	42.5	29.5	33.9	0.0	53.7	13.8	9.1
Left inferior parietal lobule	57.5	37.5	42.5	35.6	20.5	0.0	14.7	-0.3	1.0
Left superior frontal gyrus	17.5	-27.5	47.5	43.5	5.7	0.0	53.2	13.1	6.2
Left medial frontal gyrus	2.5	-22.5	47.5	58.4	50.5	0.0	100.0	10.9	0.1
Left medial frontal gyrus	7.5	-22.5	47.5	83.5	52.4	0.0	83.3	13.2	4.7
Right medial frontal gyrus	-7.5	-17.5	47.5	21.1	16.3	0.0	56.8	11.2	3.2

Right cingulate gyrus	-12.5	-7.5	47.5	18.7	28.2	0.0	45.6	12.8	8.0
Right medial frontal gyrus	-7.5	-7.5	47.5	38.0	9.8	0.0	54.2	8.7	3.6
Right medial frontal gyrus	-2.5	-7.5	47.5	82.6	44.6	0.0	61.1	5.2	0.9
Left medial frontal gyrus	2.5	-7.5	47.5	32.0	87.7	0.0	93.0	8.5	1.6
Left medial frontal gyrus	7.5	-7.5	47.5	54.1	85.6	0.0	86.9	12.4	6.3
Right cingulate gyrus	-12.5	-2.5	47.5	59.6	4.3	0.0	44.8	11.7	8.7
Right cingulate gyrus	-7.5	-2.5	47.5	14.4	6.5	0.0	46.8	9.2	6.1
Left cingulate gyrus	2.5	-2.5	47.5	88.1	100.0	0.0	98.4	7.4	-0.6
Left cingulate gyrus	2.5	2.5	47.5	24.0	78.2	0.0	50.3	5.5	-0.3
Left cingulate gyrus	7.5	2.5	47.5	23.8	45.1	0.0	26.9	9.1	5.0
Right cingulate gyrus	-2.5	7.5	47.5	48.4	19.4	0.0	5.3	0.7	2.1
Left cingulate gyrus	17.5	7.5	47.5	21.5	45.5	0.0	1.7	13.5	12.8
Left middle frontal gyrus	22.5	7.5	47.5	13.5	55.9	0.0	1.7	10.3	9.2
Left middle frontal gyrus	27.5	7.5	47.5	15.1	16.4	0.0	23.6	8.6	6.1
Left middle frontal gyrus	32.5	7.5	47.5	14.2	33.6	0.0	34.3	10.3	6.0
Left middle frontal gyrus	37.5	7.5	47.5	12.4	26.5	0.0	43.7	10.6	7.0
Right paracentral lobule	-2.5	12.5	47.5	25.4	0.4	0.0	11.6	-3.0	2.2
Right paracentral lobule	-2.5	22.5	47.5	0.0	10.6	0.0	4.3	-2.5	2.1
Left postcentral gyrus	32.5	22.5	47.5	28.7	41.5	0.0	39.3	1.8	7.2
Left postcentral gyrus	37.5	22.5	47.5	0.7	19.5	0.0	41.7	3.2	3.4
Left inferior parietal lobule	32.5	47.5	47.5	17.3	7.8	0.0	7.4	-3.5	0.4
Right superior frontal gyrus	-7.5	-17.5	52.5	21.5	10.3	0.0	40.8	11.7	5.0
Left medial frontal gyrus	7.5	2.5	52.5	18.4	54.9	0.0	35.4	10.7	6.1
Left medial frontal gyrus	12.5	7.5	52.5	34.0	2.7	0.0	31.0	12.5	10.9
Left medial frontal gyrus	17.5	7.5	52.5	7.7	42.1	0.0	6.0	12.2	12.3
Left middle frontal gyrus	22.5	7.5	52.5	40.7	17.2	0.0	20.6	10.3	8.6
Left middle frontal gyrus	27.5	7.5	52.5	80.3	27.2	0.0	55.7	9.5	5.1
Right medial frontal gyrus	-12.5	12.5	52.5	10.5	34.9	0.0	7.1	11.0	8.0
Left medial frontal gyrus	17.5	12.5	52.5	0.0	37.9	0.0	17.9	14.2	11.4
Left precentral gyrus	22.5	12.5	52.5	33.3	14.2	0.0	71.0	14.1	7.4
Left precentral gyrus	27.5	12.5	52.5	19.9	24.0	0.0	68.7	12.0	7.8
Left precentral gyrus	22.5	17.5	52.5	24.8	10.3	0.0	0.7	8.8	9.9
Left precentral gyrus	37.5	22.5	52.5	25.8	9.6	0.0	36.0	5.3	5.9
Left middle frontal gyrus	27.5	7.5	57.5	25.9	28.1	0.0	85.2	9.5	4.7

Left middle frontal gyrus	22.5	12.5	57.5	4.2	5.6	0.0	56.5	11.7	8.8
Left precentral gyrus	27.5	12.5	57.5	12.5	28.6	0.0	50.1	8.7	5.4
Left middle frontal gyrus	17.5	17.5	57.5	10.7	17.9	0.0	4.4	7.5	9.0
Left precentral gyrus	22.5	17.5	57.5	13.8	23.5	0.0	6.1	6.0	8.7
Left precentral gyrus	32.5	17.5	57.5	1.9	44.2	0.0	8.3	5.1	6.9
Left superior parietal lobule	27.5	52.5	57.5	25.4	11.1	0.0	3.8	-2.5	0.5
Right medial frontal gyrus	-7.5	12.5	62.5	14.7	0.9	0.0	14.3	6.0	4.6
Left precentral gyrus	22.5	17.5	62.5	9.8	5.7	0.0	21.4	7.8	7.2

Relative Importance as result of the machine-learning algorithms (RF, NNET, GLM, and PLS).

Connection strength as sum of edge weights for voiders (V) and voiding dysfunction (VD).

R, right; A, anterior; I, inferior; RF, random forests; NNET, neural networks; GLM, generalized linear model; PLS, partial least squares.