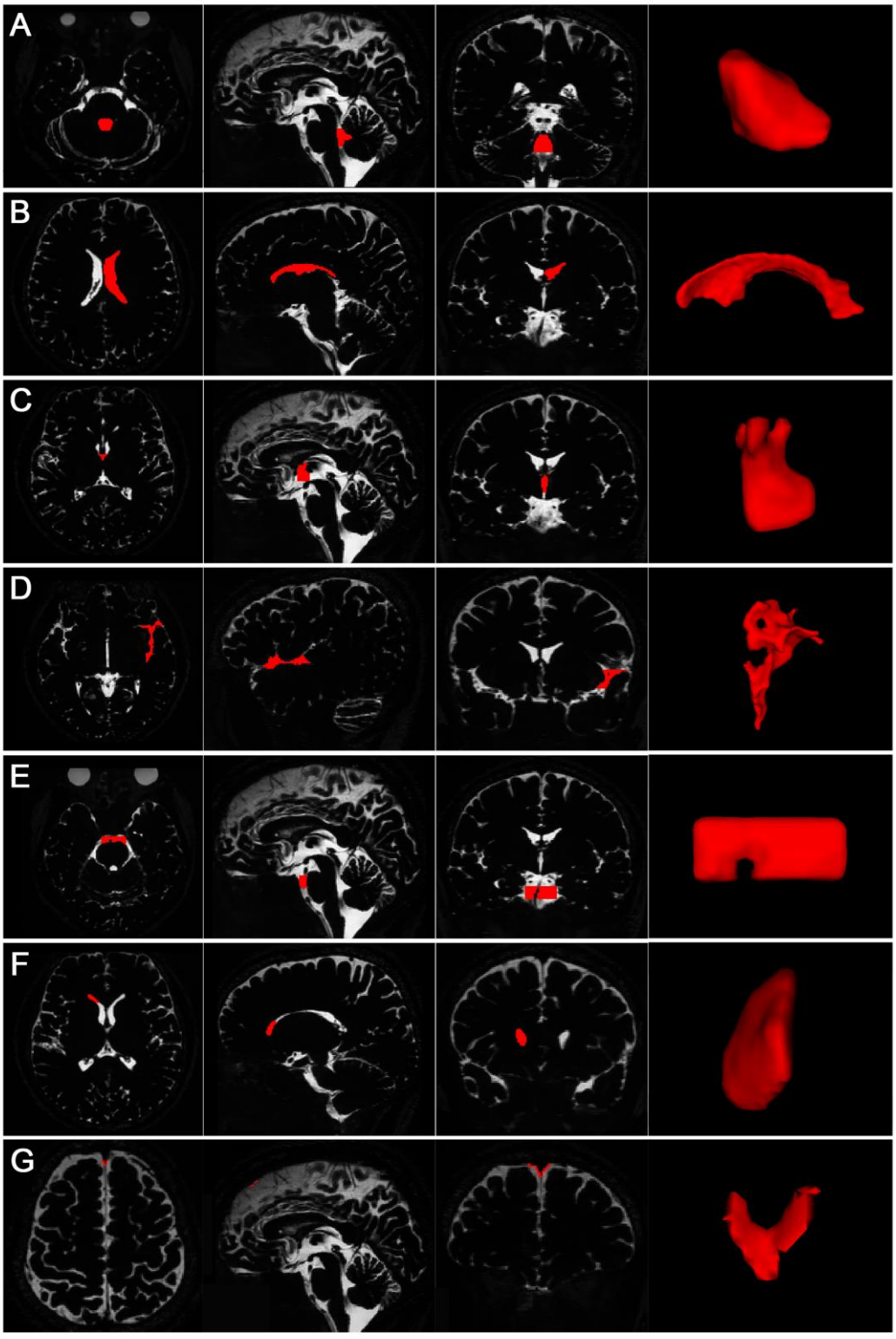
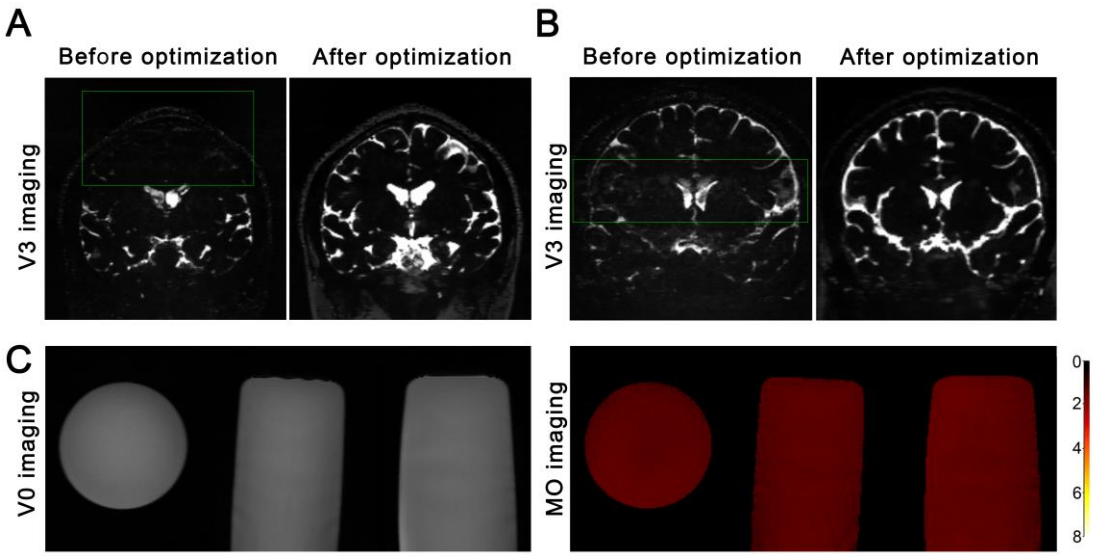
Supplemental Table 1. Basic information of the participants involved.

Group	No.	Sex	Age, year	Pulse rate	Hypertension	Diabetes
Young healthy group	#1	Female	24	60	No	No
	#2	Male	24	60	No	No
	#3	Female	25	68	No	No
	#4	Male	29	81	No	No
	#5	Female	28	72	No	No
	#6	Male	26	78	No	No
	#7	Male	26	69	No	No
Older health group	#8	Male	49	60	No	No
	#9	Female	61	61	No	No
	#10	Female	47	66	No	No
	#11	Female	60	74	No	No
	#12	Female	51	64	No	No
	#13	Male	51	67	No	No
	#14	Male	50	73	No	No
CS group	#15	Male	59	56	Yes	No
	#16	Female	64	60	Yes	No
	#17	Male	52	91	Yes	No
	#18	Female	56	69	No	No
	#19	Female	64	86	Yes	No
	#20	Male	47	88	Yes	No
	#21	Male	65	82	Yes	No
	#22	Female	72	86	Yes	No
	#23	Female	67	75	Yes	Yes
	#24	Male	62	78	Yes	No
CS-AIS group	#25	Female	76	80	Yes	No
	#26	Female	72	65	Yes	No
	#27	Male	64	65	Yes	No
	#28	Female	68	57	Yes	No
	#29	Male	69	80	Yes	No
	#30	Male	58	56	Yes	Yes
	#31	Female	65	80	Yes	Yes
	#32	Male	54	83	Yes	No
	#33	Male	52	75	Yes	No
	#34	Female	52	74	Yes	No

AIS: Acute ischemic stroke; CS: cerebrovascular stenosis.



Supplemental Figure 1. Seven ROIs defined in this article: Forth ventricle (a), lateral ventricle (b), entrance from the foramen of Monro (c), sylvian fissure (d), prepontine cistern (e), anterior horn of the lateral ventricle (f) and around superior sagittal sinus (g).



Supplemental Figure 2. Optimization and phantom imaging of the iMDDSDE-prepared, heavily T2-weighted 3D FSE sequence. (a, b) For V3 imaging, zeroth moment-compensated gradients usually resulted in CSF flow-induced signal loss in the parietal area and phase mismatch errors surrounding the lateral ventricles. These imaging artefacts were well-controlled with second order moment-compensated gradients. (c) The V0 and MO imaging of a water phantom at room temperature (18 $^{\circ}$C), which had a mean value of 1.88×10^{-9} m^2/s.