

Fig. S1 Boxplot graphs showing quartiles of relative CBF ratio in the lesion region and its contralateral mirror region in ASPECTS regions. The central rectangle spans the first quartile to the third quartile (the interquartile range or IQR). The "whiskers" above and below the box show the locations of the minimum and maximum excluding outliers. The asterisk indicates extreme outliers.

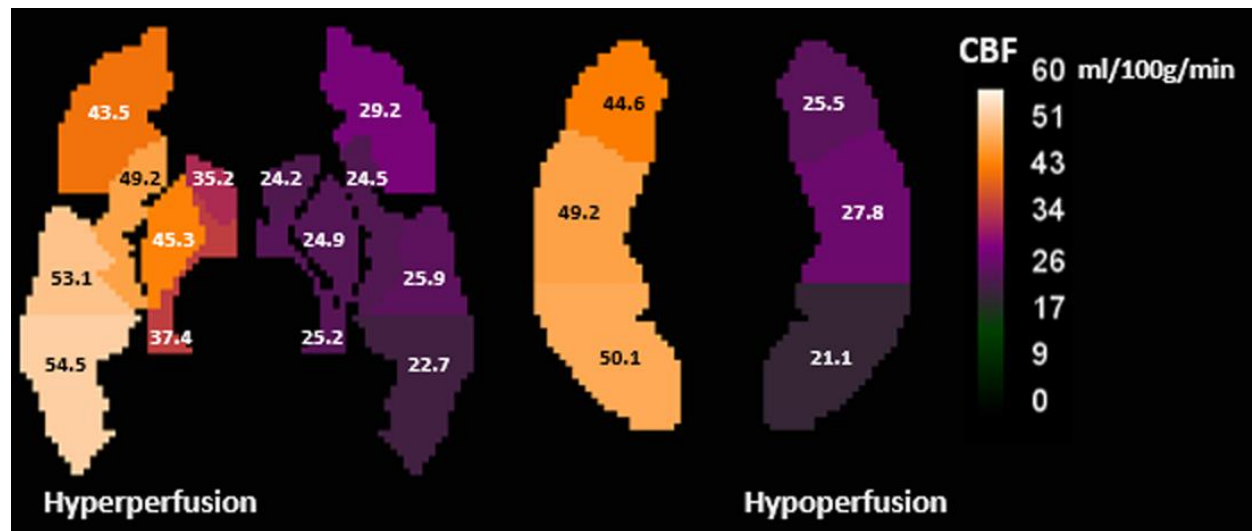


Fig. S2. ASPECTS template displaying mean absolute CBF measurements in the lesion hemisphere for hyperperfused regions (left) and hypoperfused regions (right). The mean CBF measurements were calculated from 61 subjects who exhibited hyperperfusion in at least one ASPECTS region or 56 subjects who exhibited hypoperfusion in at least one ASPECTS region.

Table S1 Demographic and clinical characteristics of study participants

Characteristic	N (%)	Median (IQR)
Total study, N=90		
Age, y		73 (62-82)
Female Gender	51 (56.7)	
Hypertension	55 (61.1)	
Diabetes	21 (23.3)	
Hyperlipidemia	31 (34.4)	
Atrial Fibrillation	23 (25.6)	
NIHSS		16 (9-20)
Time from treatment to ASL*, h		6 (5-17)
Recanalization assessed, n=48		
Complete recanalization (TICI \geq 2b)	23 (47.9)	

IQR indicates interquartile range; NIHSS, National Institutes of Health Stroke Scale; ASL, arterial spin labeling.

*When patient had more than 1 treatment modality, treatment time is recorded when the last modality was performed.

Table S2 Area under curve (AUC) calculations with Confidence Intervals to evaluate Auto-RPS performance using various hypo-perfusion and hyper-perfusion thresholds.

Thresholds to define hypo- and hyper-perfusion	AUC (Hyperperfusion is regarded as bad outcome)	AUC (Hyperperfusion is regarded as good outcome)	DeLong's test p-value
12.5th and 87.5th	0.75 (0.64-0.85)	0.73 (0.64-0.81)	0.695
25th and 75th	0.80 (0.70-0.91)	0.77 (0.67-0.86)	0.573
37.5th and 62.5th	0.73 (0.62-0.84)	0.68 (0.57-0.79)	0.513

Table S3 Inter-rater agreement of manual RPS in each ASPECTS region

Region	ICC	CI	P value
Caudate	0.12	-0.46-0.47	>0.05
Lentiform	0.47	0.12-0.68	<0.01
Internal Capsule	0.20	-0.32-0.52	>0.05
Insula	0.58	0.30-0.74	<0.01
M1	0.58	0.31-0.75	<0.01
M2	0.75	0.59-0.85	<0.01
M3	0.64	0.40-0.78	<0.01
M4	0.67	0.45-0.80	<0.01
M5	0.62	0.37-0.77	<0.01
M6	0.72	0.53-0.83	<0.01
Total RPS	0.76	0.60-0.85	<0.01

ICC, intraclass correlation coefficient; CI, 95% Confidence Limits.