

**Table S1** Comparison between males and females

Parameters	Male	Female	P value
CBF <sub>G</sub> (mL/100g/min)	56.77 (49.84–62.97)	55.99 (50.58–65.36)	0.858
CBF <sub>M</sub> (mL/100g/min)	270.78 (120.10–417.90)	110.40 (57.15–222.79)	0.006
nCBF	4.64 (2.13–8.27)	1.77 (1.07–3.26)	0.008

Data are presented as the median (interquartile range). CBF<sub>G</sub>, the cerebral blood flow of contralateral normal gray matter; CBF<sub>M</sub>, the cerebral blood flow of meningiomas; nCBF, normalized cerebral blood flow.

**Table S2** Comparison between different age spans

Subgroups	CBF <sub>G</sub> (mL/100g/min)	CBF <sub>M</sub> (mL/100g/min)	nCBF
Subgroup 1 (year)			
<18 (n=1)	103.4	328.3	3.18
18–44 (n=11)	55.02 (52.92–57.73)	139.2 (90.6–303.2)	2.44 (1.68–5.37)
45–59 (n=19)	55.14 (50.04–62.97)	182.9 (84.1–270.8)	3.06 (1.28–4.72)
>59 (n=17)	58.90 (45.59–66.59)	110.4 (57.1,277.0)	1.77 (0.99–8.04)
P value	0.326	0.660	0.929
Subgroup 2 (year)			
≤44 (n=12)	55.77 (53.21–58.19)	170.2 (98.0–322.1)	2.81 (1.79–5.09)
>44 (n=36)	56.81 (49.89–65.75)	148.44 (75.0,270.7)	2.60 (1.23–5.03)
P value	0.757	0.721	0.812

Data are presented as the median (interquartile range). CBF<sub>G</sub>, the cerebral blood flow of contralateral normal gray matter; CBF<sub>M</sub>, the cerebral blood flow of meningiomas; nCBF, normalized cerebral blood flow.

**Table S3** Stepwise multivariable logistics regression for estimated blood loss

Parameters	Odds ratio	95%CI	P value
VRTB	2.097	1.255–3.503	0.005
CBF <sub>M</sub>	1.007	1.002–1.012	0.006

CI, confidence interval; VRTB, the volume ratio between tumor and total brain; CBF<sub>M</sub>, the cerebral blood flow of meningiomas.