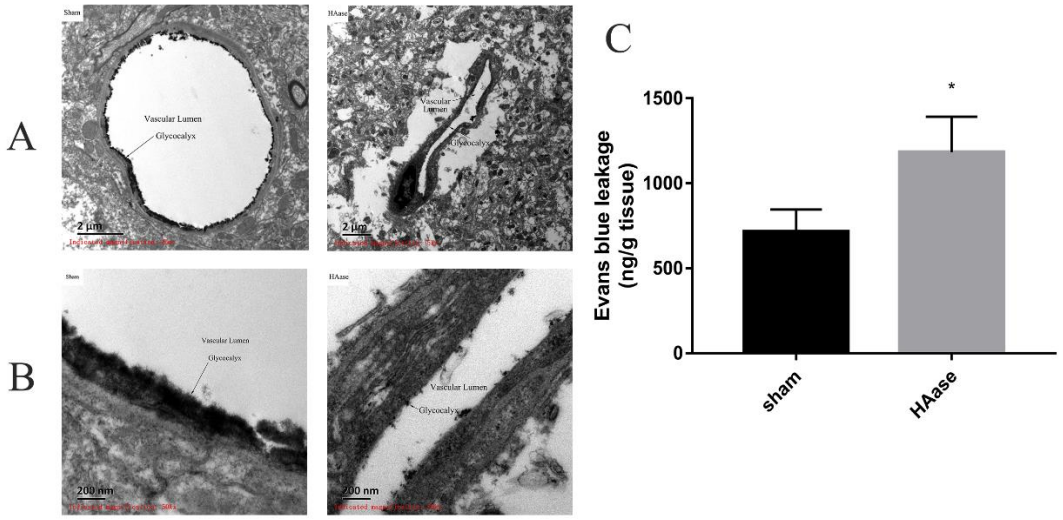
Table 1. Baseline characteristics among the four experimental groups

Parameters	Sham	CA	HAase	HC
Body weight, g	379±12	388±19	382±27	381±20
Baseline MAP, mmHg	105±8	109±4	107±10	104±12
Baseline HR, bpm	400±10	411±7	405±11	403±6
Baseline RT, °C	36.8±0.2	36.8±0.3	36.9±0.3	36.9±0.3
Baseline $PaCO_2$, mmHg	40±3	41±3	40±2	40±3
Lactic acid, mmol/L	1.14±0.33	1.21±0.12	1.05±0.20	1.09±0.20
PH	7.35±0.01	7.35±0.02	7.35±0.01	7.35±0.02
Glucose, mmol/L	7.2±0.5	7.3±0.5	7.3±0.2	7.5±0.3
Time from asphyxia to CA, s	NA	207±9	198±10	223±18
Time required for ROSC, s	NA	175±62	192±56	178±56
Total dose of epinephrine, μg	NA	7.5±2.9	7.3±3.3	7.5±3.3

Results were mean ± SD. For blood gas analysis, n = 5-10 for each group. For the other variables, all rats in each group were recorded. MAP, mean arterial blood pressure; HR, heart rate; RT, rectal temperature; PaCO2, arterial carbon dioxide pressure. ROSC, return of spontaneous circulation; NA, not applicable; Sham, sham group; CA, cardiac arrest group; HAase, hyaluronidase group; HC, hydrocortisone group.



Supplemental Figure 1. After intravenous administration of HAase (2000 units/kg) in healthy rats, the capillary endothelial glycocalyx in the brain was also seriously degraded and the capillary was surrounded by edema. Evans Blue leakage was also observed after treatment, suggesting that the BBB permeability increased after the degradation of glycocalyx. Electron microscopic views of the cerebral capillaries endothelial glycocalyx in cortex and hippocampus 3h after intravenous administration of HAase. **(A)** Electron microscopic overview of lanthanum-stained rat cerebral capillaries (bar = 2μm). **(B)** Detailed pictures of glycocalyx on cerebral capillaries (bar = 200nm). **(C)** Blood brain barrier permeability evaluated using Evans blue in the whole brain at 3h after intravenous administration of HAase (n=6 per group). Data are presented as mean ± SD. Sham, sham group; HAase, hyaluronidase group (2000 units/kg); *$p < 0.05$ vs. sham group.