**Supplemental material**

**Supplemental Table 1. Infarct volume in diffusion weighted imaging sequences**

| Salvinorin A group ($cm^3$) | Control group ($cm^3$) |
|---|---|
| 2.9678 | 7.447 |
| 4.0128 | 5.8058 |
| 4.2064 | 8.2654 |
| 4.5518 | 7.1258 |

**Supplemental Table 2. Hemisphere volume in T2-weighted images**

| Salvinorin A group ($cm^3$) | | Control group ($cm^3$) | |
|---|---|---|---|
| Lesion side | Contralateral side | Lesion side | Contralateral side |
| 48.5791 | 48.4977 | 53.5058 | 52.9925 |
| 42.9933 | 42.9288 | 47.1198 | 46.5131 |
| 41.6669 | 41.5413 | 59.5905 | 58.7275 |
| 46.1881 | 45.8845 | 48.0033 | 47.1979 |

**Supplemental Table 3. Apparent diffusion coefficient values in apparent diffusion coefficient sequences**

| Salvinorin A group | | Control group | |
|---|---|---|---|
| Lesion side | Contralateral side | Lesion side | Contralateral side |
| 456.8 | 642 | 308 | 725.4 |
| 392.8 | 692.8 | 355.8 | 612.4 |
| 626.4 | 764 | 324.4 | 653.4 |
| 490.6 | 634 | 261.6 | 595.2 |

**Supplemental Table 4. Fractional anisotropy values in diffusion tensor imaging sequences**

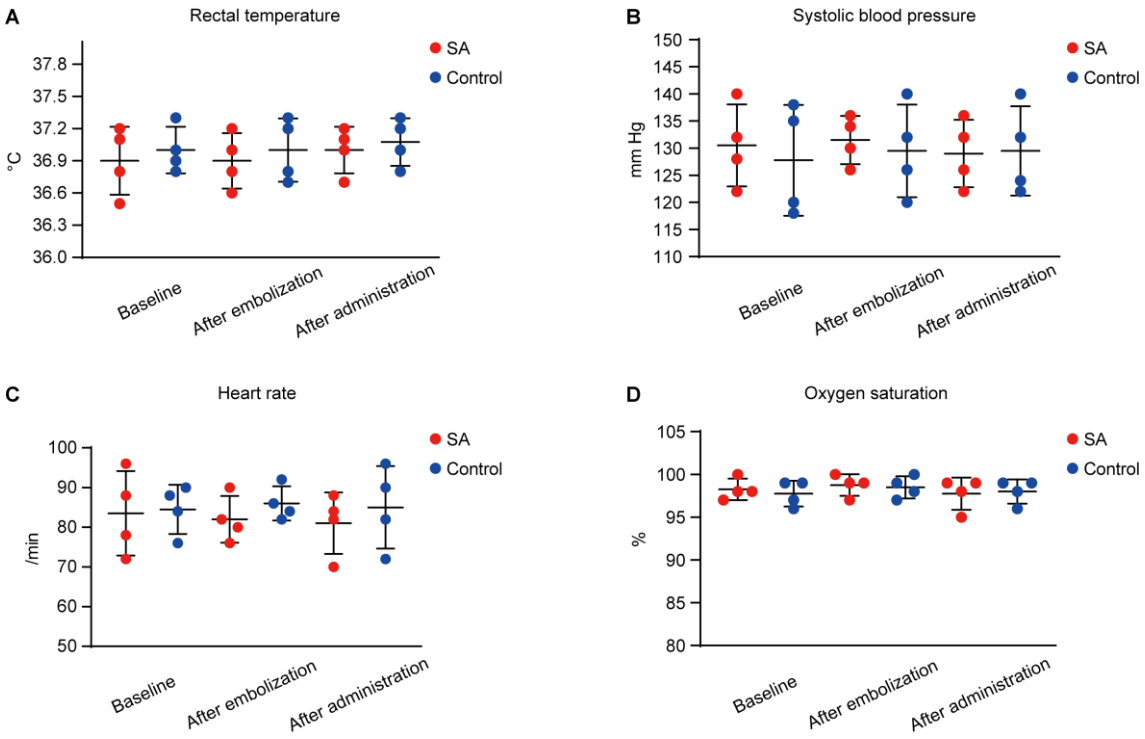
| Salvinorin A group | Control group |
|---|---|

| Lesion side | Contralateral side | Lesion side | Contralateral side |
|---|---|---|---|
| 0.285 | 0.378 | 0.269 | 0.391 |
| 0.274 | 0.323 | 0.248 | 0.325 |
| 0.296 | 0.332 | 0.27 | 0.325 |
| 0.246 | 0.32 | 0.277 | 0.357 |

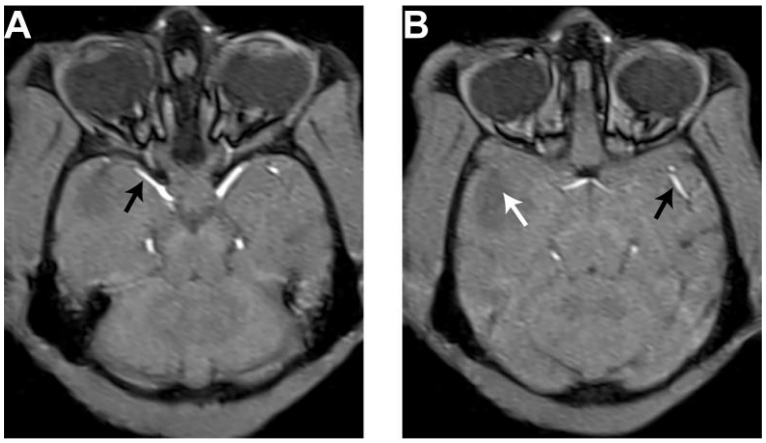
**Supplemental Table 5. Comparison of the NHPSS scores between two groups during the follow-up period**

| Time points | NHPSS | | *P* value |
|---|---|---|---|
| | SA group | Control group | |
| 24 hours | 13.5 ± 1.7 | 15 ± 1.4 | 0.228 |
| 48 hours | 12.8 ± 1.5 | 14.5 ± 2.1 | 0.221 |
| 72 hours | 9.0 ± 1.2 | 13.0 ± 2.9 | 0.045 |
| 7 days | 3.8 ± 1.7 | 9.5 ± 2.4 | 0.008 |
| 14 days | 1.8 ± 1.7 | 8.0 ± 2.2 | 0.004 |
| 28 days | 1.3 ± 1.3 | 7.0 ± 1.8 | 0.002 |

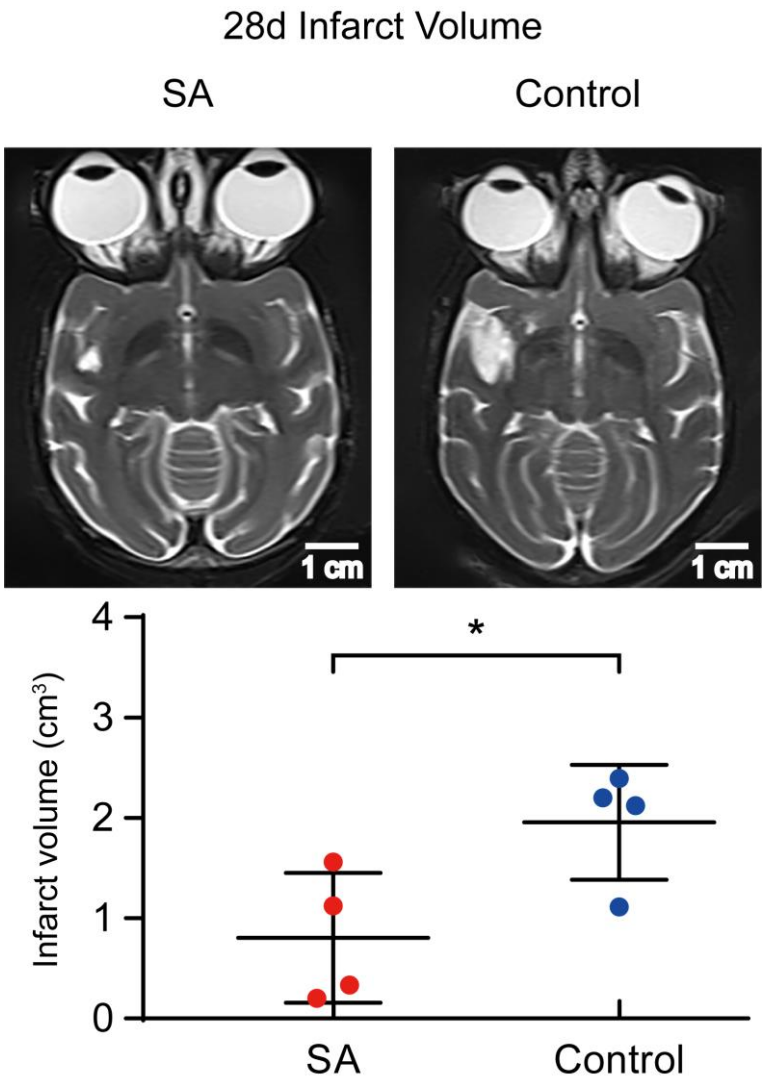
The multiple comparisons of NHPSS scores at specific time point were conducted with the Student's t-test between the SA group and control group. The significance level was set at $P \leq 0.0083$ (2-sided) since the type I error rate had been elevated in the repeated measures analysis of variance. SA, salvinorin A; NHPSS, Non-Human Primate Stroke Scale.




**Supplemental Figure 1. Physiological parameters.** Rectal temperature (**A**), systolic blood pressure (**B**), heart rate (**C**), and oxygen saturation (**D**) were presented at baseline, after embolization, and after administration with no significant differences between the two groups. SA, salvinorin A.




**Supplemental Figure 2. Magnetic resonance angiography of experimental animals 24 hours after the procedure.** These images, from magnetic resonance angiography of experimental animals 24 hours after the procedure, demonstrate that the right middle cerebral artery M2 segment remained occluded even 24 hours after procedure. Right middle cerebral artery M1 segment was clearly observed (**A**, black arrow). Right middle cerebral artery M2 segment was not shown (**B**, white arrow), whereas the left middle cerebral artery M2 segment was observed (**B**, black arrow), indicating the permanent occlusion of the right middle cerebral artery M2 segment. This finding enhances the credibility of our model.




**Supplemental Figure 3. Infarct volume of experimental animals 28 days after the procedure.** Representative T2-weighted images show that the infarct volume in the SA group at 28 days post procedure was smaller than that in the control group ($0.8 \pm 0.6$ cm$^3$ versus $2.0 \pm 0.6$ cm$^3$; $P$=0.037), indicating that the initial neuroprotective effect of SA was maintained. * indicates statistical significance. SA, salvinorin A.