Supplementary Information: Animal Experiment Compliance & Original Western Blot Data

General Note:

1. Animal Experiment Compliance: As required for revision, the manuscript's Methods section has been supplemented with a statement confirming that all animal procedures were approved by the Animal Ethics Committee of Zunyi Medical University (Approval No.: ZMU21-2207-008) and conducted in strict accordance with the national Guidelines for the Management and Use of Laboratory Animals in China.
2. Original Data: This document contains the original, unedited scan images of Western blot membrane strips for all experimental groups and time points (6 h, 3 d, 7 d). Each image is labeled with the corresponding group (Surgery+C1-27, Surgery+Vehicle, C1-27 alone, Control group), time point, and target protein (GSTO1/GAPDH) for clear identification.
3. Membrane Preparation: To optimize antibody usage and signal detection, PVDF membranes were cut horizontally according to molecular weight markers prior to primary antibody incubation. The images provided here represent full, uncropped scans of these membrane strips without further editing.
4. Independent Membranes: For specific figures (e.g., Figure 2 and Figure 5), GSTO1 and GAPDH bands were derived from independent membranes. All experimental conditions—including protein loading amount, electrophoresis (80 V/120 V), transfer (200 mA, 90 min), antibody incubation (dilution, time/temperature), and ECL exposure—were strictly standardized to ensure result comparability across membranes.
5. Sample Size: The images display 3 representative biological replicates per group. Quantitative statistical analysis was performed using the complete set of n=6 biological replicates per group, with normalized data (GSTO1/GAPDH intensity ratio) provided in Supplementary file(Table S4, S5).

6. Image Integrity: All images were captured within the linear detection range of the ECL system. No excessive contrast, brightness adjustments, or non-linear processing was performed, ensuring the accuracy of band grayscale quantification.