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Supplementary Information for

Glucose metabolism mediates disease tolerance in cerebral malaria

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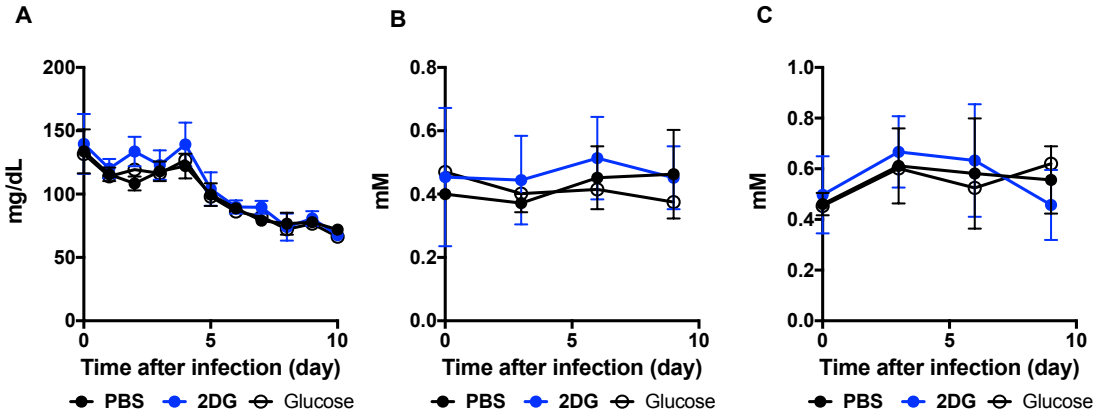

Fig. S1. Glycemia, plasma beta hydroxybutyrate (BHOB) and plasma non-esterified free fatty acid (NEFA) in 2DG-treated animals. A. Glycemia in PbA-infected animals treated with 2DG, glucose and PBS (n=5 per group). B. Plasma NEFA measured in PbA-infected animals treated with 2DG, glucose and PBS (n=5 per group). C. BHOB measured in PbA-infected animals treated with 2DG, glucose and PBS (n=5 per group).

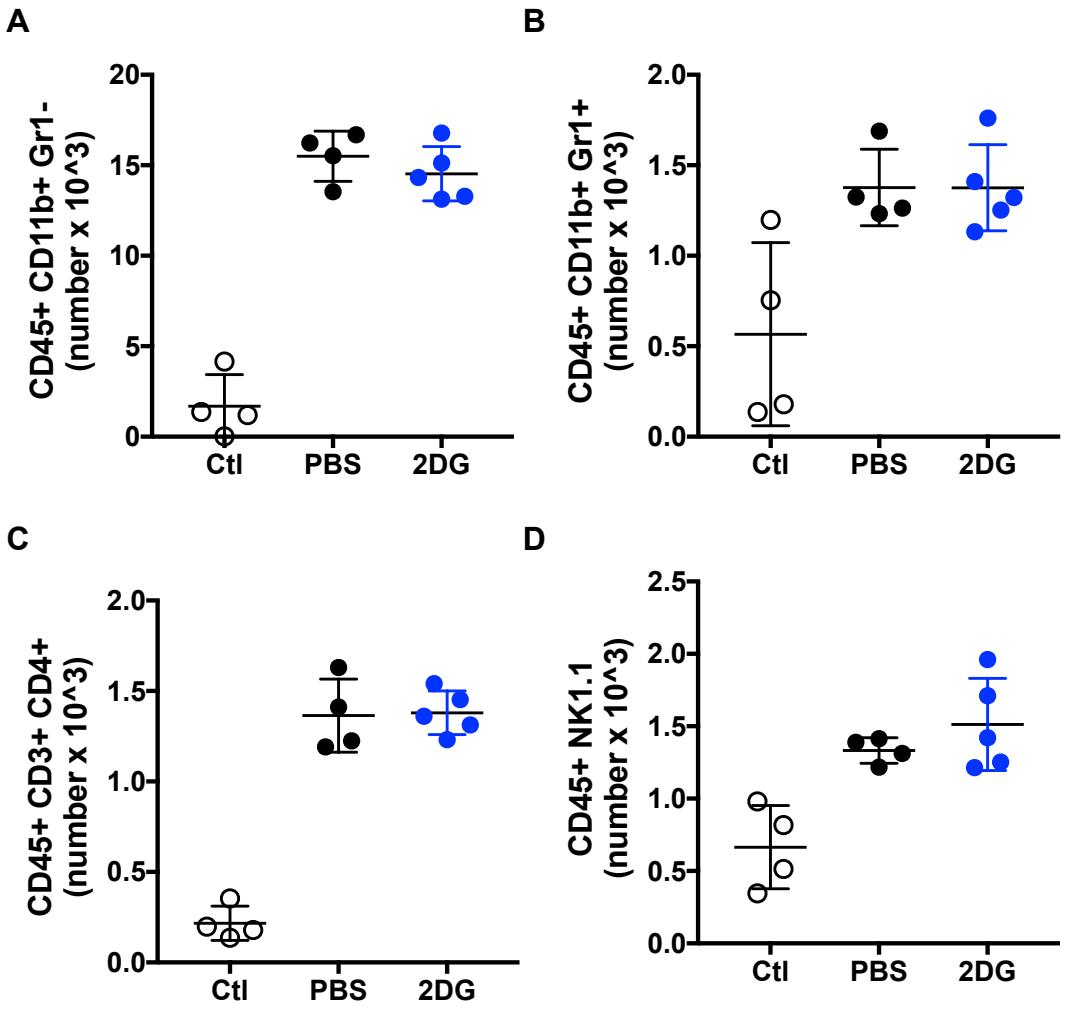

Fig. S2. Other immune subsets examined in Day 10 infected brains. A. Gr1- myeloid cells. B. Gr1+ myeloid cells. C. CD4+ T-cells. D. NK 1.1 expressing cells.

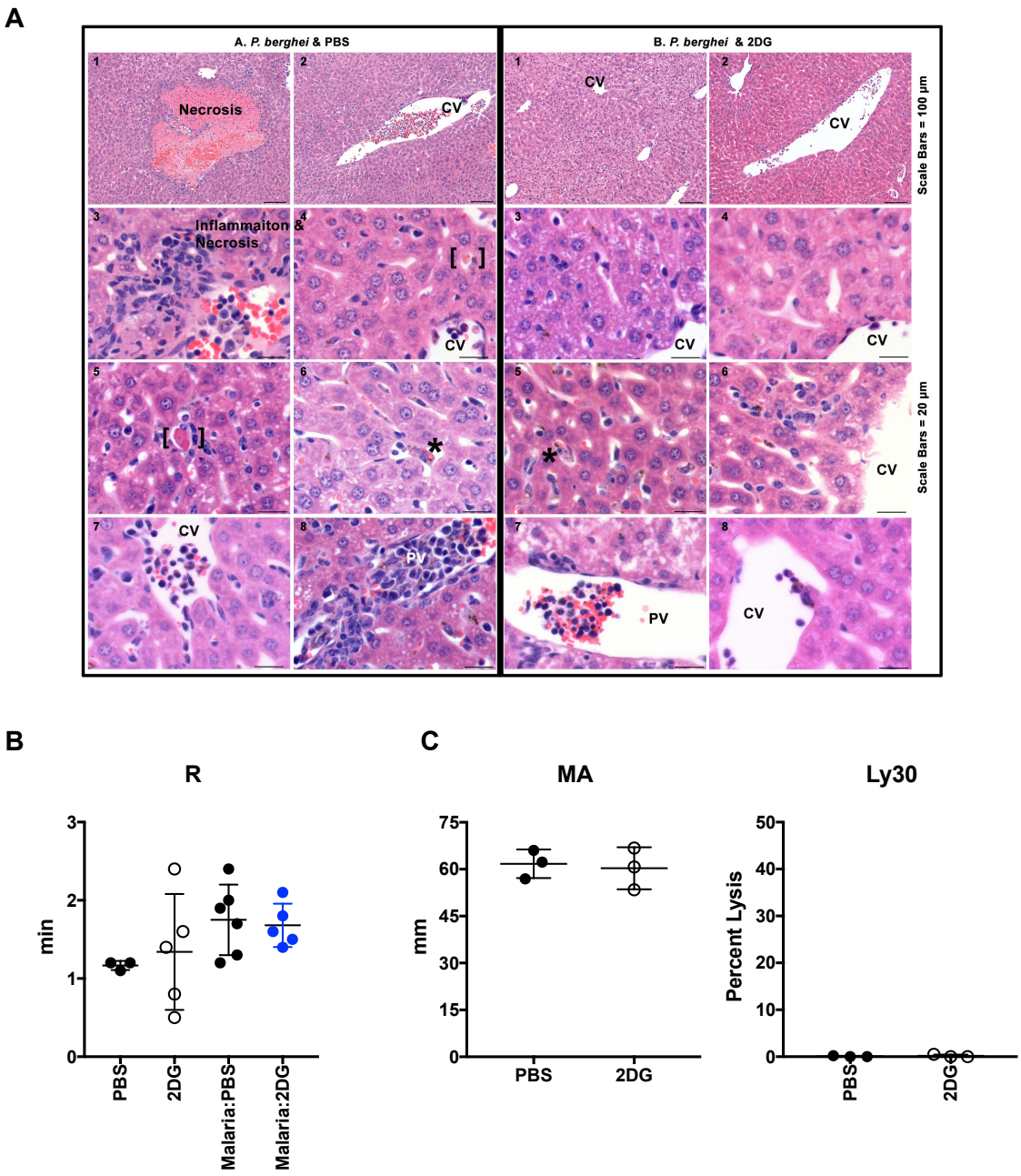

Fig. S3. Liver pathology and other TEG parameters. A. Representative liver histology from PbA-infected mice treated with PBS or 2DG harvested on Day 10 post-infection. B. Reaction time (R) of citrated whole blood harvested on Day 10 post-infection or post-sham in PBS and 2DG-treated animals. C. Maximum amplitude (MA) and percent clot lysed after 30 minutes (Ly30) in citrated whole blood collected from animals infected with PbA spiked with 5 mg/mL 2DG or PBS immediately after collection and subjected to TEG analyses.

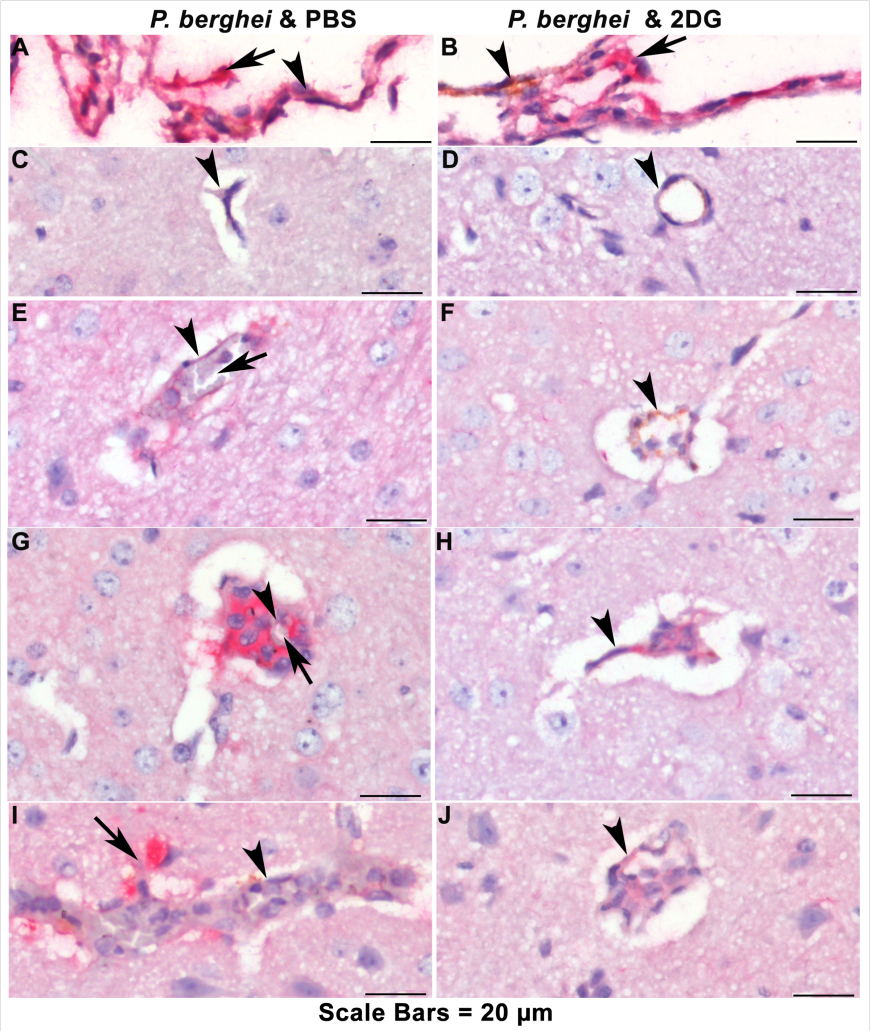

Fig. S4. Representative von Willebrand Factor (vWF) and fibrin(ogen) expression in transverse sections of brain from mice infected with PbA treated with PBS or 2DG. The meninges from both groups of mice (A, B) were used as the positive controls for both antibodies for labeling vFW (brown, 3,3′-Diaminobenzidine-positive) vascular endothelia cells (arrow heads) and fibrin(ogen) (red, alkaline phosphatase-positive) (arrows), and erythrocytes within vessel lumen serve as the negative control (E, arrow). Slides were counterstained with hematoxylin. Double stained sections of brain show consistent vascular endothelial cell positive labeling by vWF (A – J, arrow heads); however the most intense staining was observed in non-thrombosed blood vessels regardless if the lumen was collapsed (A), patent with and without perivascular edema (F). Because mice infected with PbA given PBS develop more frequent and often larger thrombi, they often have stronger and more extensive positive staining for fibrin(ogen) (G, I arrows) compared to mice treated with 2DG which had markedly fewer and less severe lesions (H, J).

Table S1. qPCR primer sequences

Gene	Forward Primer	Reverse Primer
Tnf	5'-TCTGTCTACTGAACTTCGGGGTG-3'	5'-ACTTGGTGGTTTGCTACGACG-3'
Rpl13a	5'-GAGGTCGGGTGGAAGTACCA-3'	5'-TGCATCTTGGCCTTTTCCTT-3'
Mx1	5'-TCCTCCCCAAATGTTTTCAG-3'	5'-ACTGAGATGACCCAGCACCT-3'
Ifng	5'-CGGCACAGTCATTGAAAGCCTA-3'	5'-GTTGCTGATGGCCTGATT-3'
Perf1	5'-GCATCGGTGCCCAAGCCAAGTG-3'	5'-GCCAGCGAGCCCCTGCTCATCA-3'
PbA18s	5'-AAGCATTAAATAAAGCGAATACATCCTTAC-3'	5'- GGAGATTGGTTTTGACGTTTATGTG-3'