

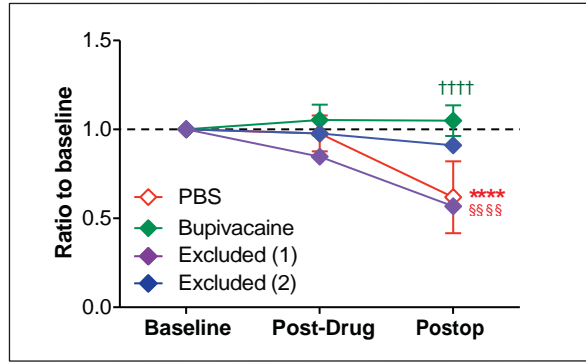
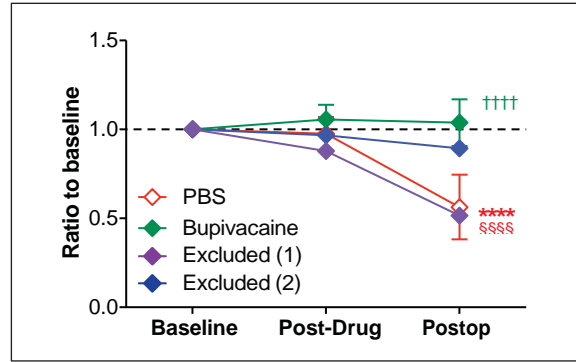
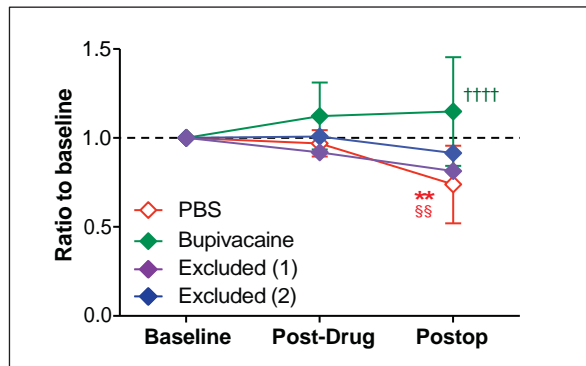
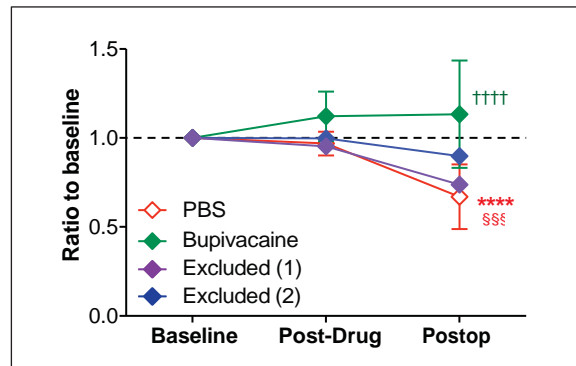
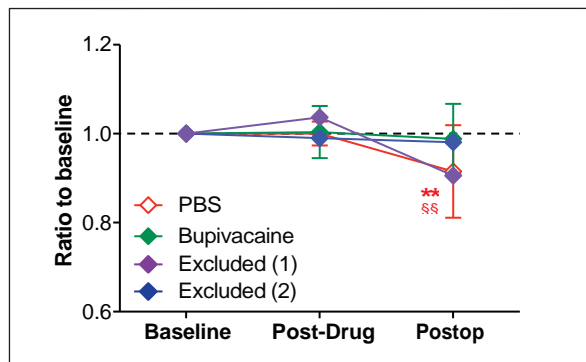
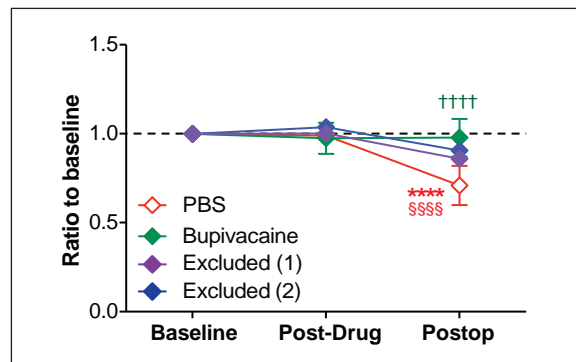
A. Spike frequency AUC/respiratory cycle**B. Spike frequency AUC/minute****C. ∫Phr AUC/respiratory cycle****D. ∫Phr AUC/minute****E. Central respiratory rate****F. T_I:T_E**

Figure S4. Efferent phrenic nerve activity after the upper abdominal incision in the animals with the improperly positioned epidural catheters. Two animals were excluded because methylene blue dye injected through the catheters at the end of the protocol was identified in the paraspinal muscles. One of these rats received bupivacaine [“Excluded (1)”], and the other received PBS [“Excluded (2)”] through the catheter. These 2 rats’ data are superimposed on the Figure 7. **(A-F):** Spike frequency area-under-the-curve (AUC)/respiratory cycle (A), spike frequency AUC/minute (B), integrated phrenic neurogram (∫Phr) AUC/respiratory cycle (C), ∫Phr AUC/minute (D), central respiratory rate (E), and inspiratory-to-expiratory duration ratio (T_I:T_E; F) were evaluated after injection of test drug through the catheter (Post-Drug) and the abdominal incision (Postop). Data are presented as mean ± SD in the PBS and the Bupivacaine groups, and the individual data points are plotted for the Excluded (1) and the Excluded (2). ***P* < 0.01; *****P* < 0.0001 vs. Baseline, §§*P* < 0.01; §§§*P* < 0.001; §§§§*P* < 0.0001 vs. Post-Epidural, and ††††*P* < 0.0001 vs. PBS by two-way ANOVA with repeated measured in one factor, followed by Sidak’s multiple comparison tests. Only the “PBS” and the “Bupivacaine” groups were included in the statistical analyses.