# Researchers uncover mechanisms of brexanolone and the role of inflammation in post-partum depression

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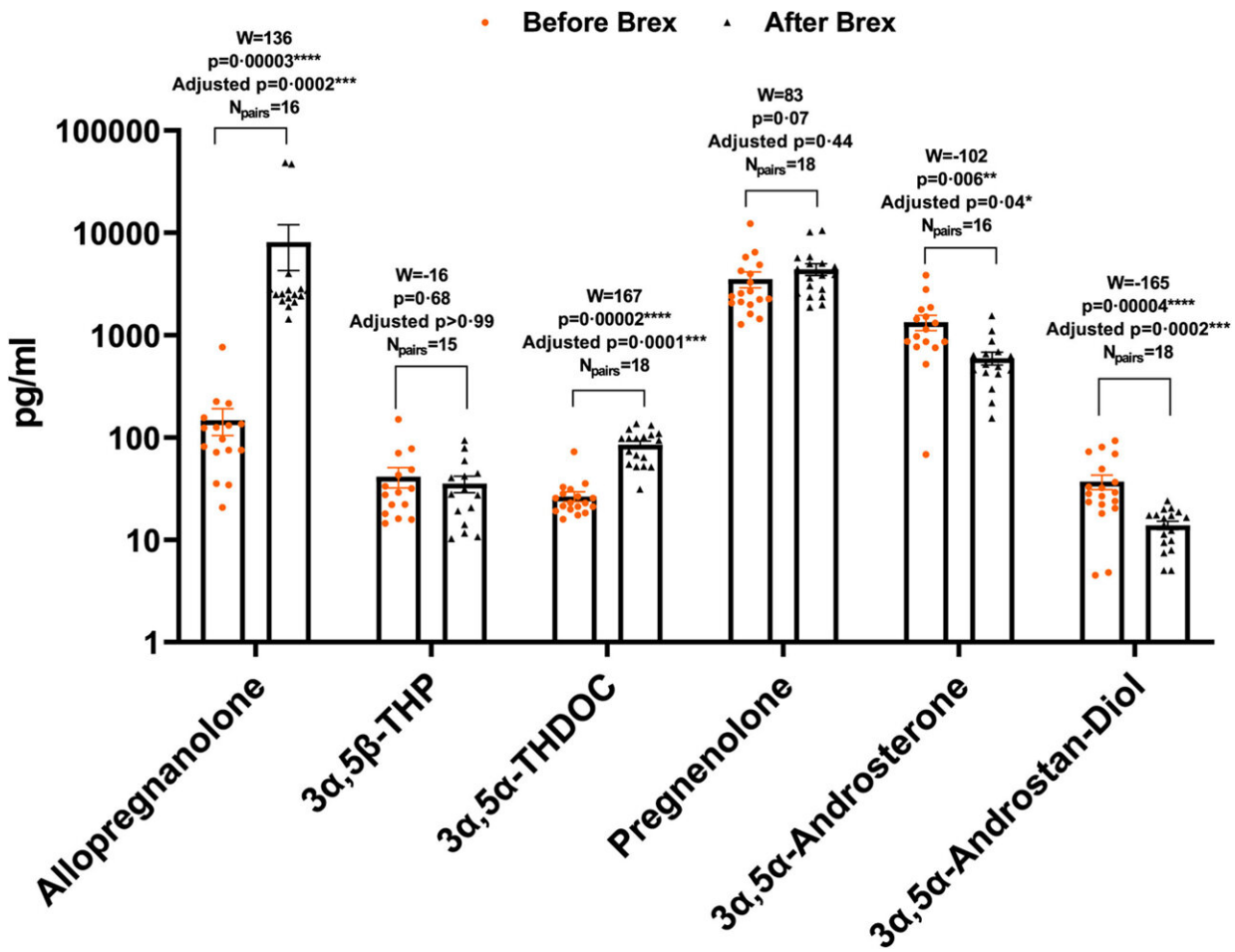


Brexanolone infusion alters multiple steroid levels in PPD patient serum. Serum was collected ~1 h pre- and 6 h post-brexanolone (Brex) infusion (60 h) and simultaneously analyzed for the levels of allopregnanolone, pregnanolone (3α,5β-THP), allotetrahydrodeoxycorticosterone (3α,5α-THDOC), pregnenolone, 3α,5α-

androsterone and 3α,5α-androstan-diol by gas chromatography-mass spectrometry (GCMS). Since the data values did not represent normal (Gaussian) distribution using the Kolmogorov–Smirnov normality test, Multiple Wilcoxon matched-pairs signed rank tests with Bonferroni-Dunn correction (MLT Wilcoxon BFD) for the multiple comparisons were applied to determine the effects of brexanolone infusion on the levels of the neurosteroids. The median values of differences in picograms/milliliter (pg/ml), % confidence intervals (CI) of differences, sum of signed ranks (W), p and adjusted p values were examined. Brexanolone infusion increased the levels of allopregnanolone ($N_{pairs}$ = 16) and 3α, 5α-THDOC ($N_{pairs}$ = 18), while decreasing 3α,5α-androsterone ( $N_{pairs}$ = 16) and 3α,5α-androstan-diol ( ($N_{pairs}$ = 18). The changes in the levels of 3α,5β-THP ($N_{pairs}$ = 15) and pregnenolone ($N_{pairs}$ = 18) after brexanolone infusion were not statistically significant. The W values, p and adjusted p values are presented in the figure. ∗p