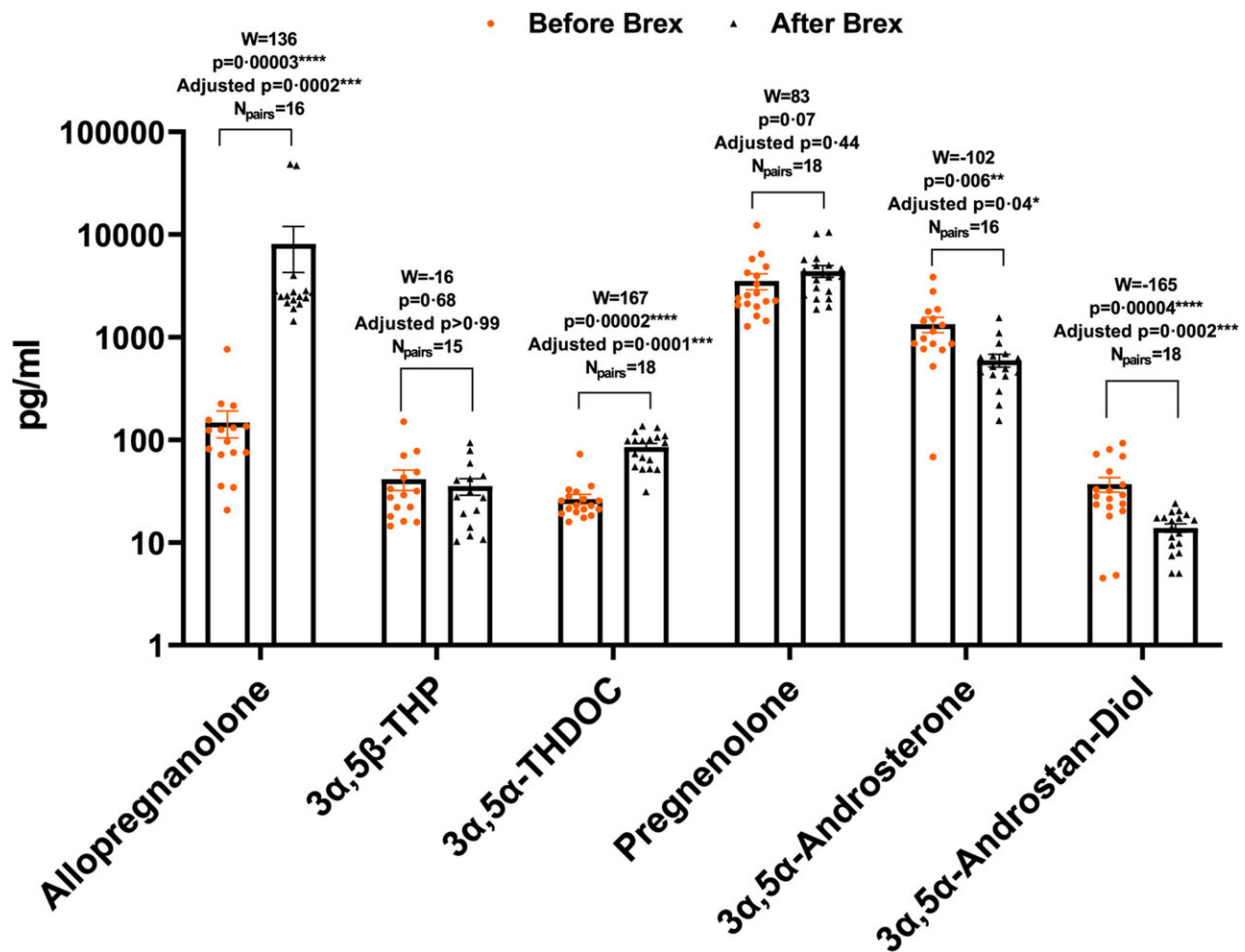


# Researchers uncover mechanisms of brexanolone and the role of inflammation in post-partum depression

February 20 2023



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  $3\alpha,5\alpha$ -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 ( $N_{\text{pairs}} = 16$ ) and  $3\alpha, 5\alpha$ -THDOC ( $N_{\text{pairs}} = 18$ ), while decreasing  $3\alpha,5\alpha$ -androsterone ( $N_{\text{pairs}} = 16$ ) and  $3\alpha,5\alpha$ -androstan-diol ( $N_{\text{pairs}} = 18$ ). The changes in the levels of  $3\alpha,5\beta$ -THP ( $N_{\text{pairs}} = 15$ ) and pregnenolone ( $N_{\text{pairs}} = 18$ ) after brexanolone infusion were not statistically significant. The W values, p and adjusted p values are presented in the figure. \*p

Citation: Researchers uncover mechanisms of brexanolone and the role of inflammation in postpartum depression (2023, February 20) retrieved 18 April 2023 from <https://medicalxpress.com/news/2023-02-uncover-mechanisms-brexanolone-role-inflammation.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.