

Spatial signatures of anesthesia-induced burst-suppression differ between primates and rodents

May 24 2022





Mapping burst-suppression in anesthetized humans without electroencephalogram (EEG). (A) Maps of burst-suppression are computed via general linear model (GLM) analysis using one of two regressors—either the EEG-derived hemodynamic model or the functional magnetic resonance imaging (fMRI)-derived asymmetric principal component (PC). The resulting Z statistic maps, for an example subject are shown here in the MNI152 template space. Neighborhood cross-correlation values between the two types of Z statistic maps are plotted on the right, across all runs with asymmetric PCs (N=19 subjects, n=21 EEG-fMRI runs, see Figure 2—source data 1). (B) The group burstsuppression map, computed via a second-level analysis of the single-subject asymmetric PC GLMs, is shown here overlaid on the MNI152 volumetric template. The group statistics were carried out with the FSL (FMRIB's Software Library) tool randomize; the resulting T statistic maps were thresholded using threshold-free cluster enhancement (TFCE) and a corrected p

Citation: Spatial signatures of anesthesia-induced burst-suppression differ between primates and rodents (2022, May 24) retrieved 6 May 2024 from https://medicalxpress.com/news/2022-05-spatial-signatures-anesthesia-induced-burst-suppression-differ.html

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