

*Predictive Value of the
Bispectral Index for Burst
Suppression on
Diagnostic EEG During
Drug-Induced Coma.*

Richard B. Arbour

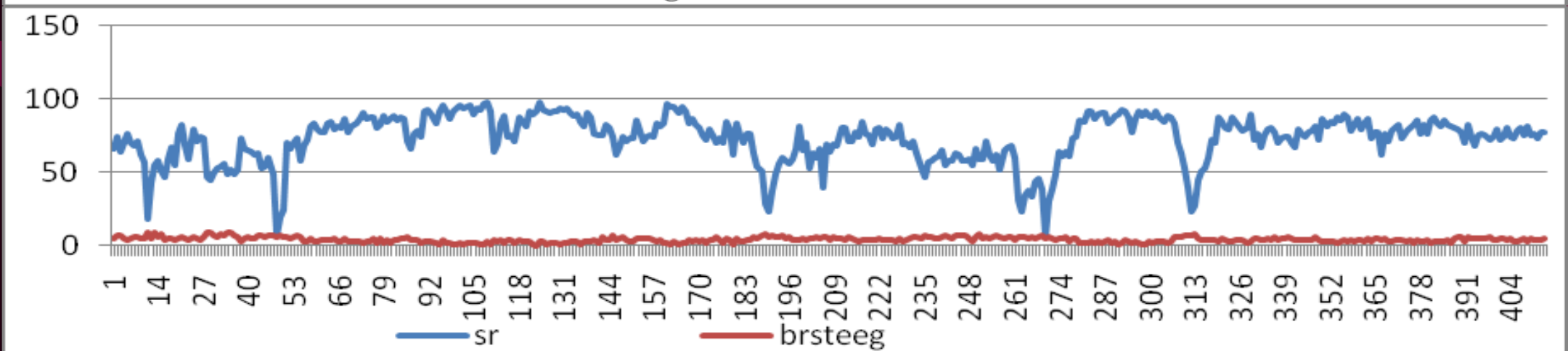
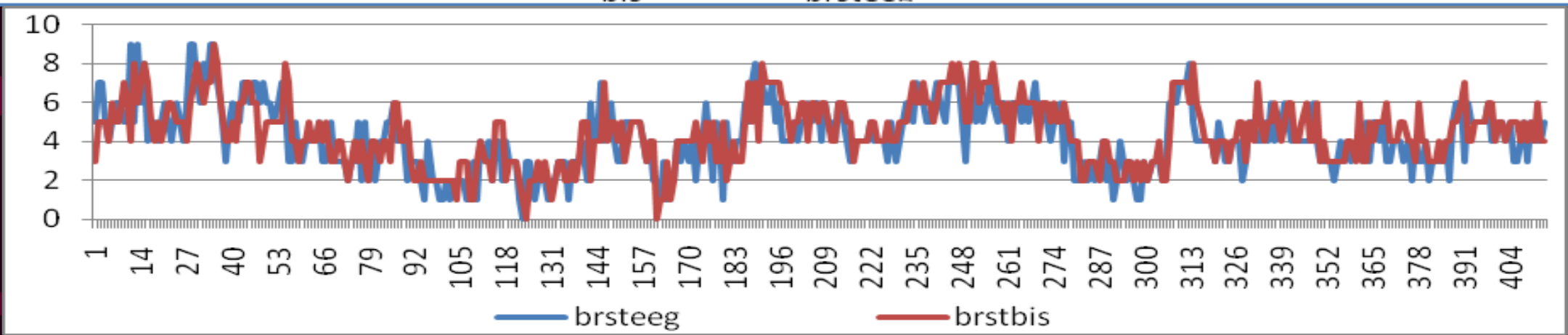
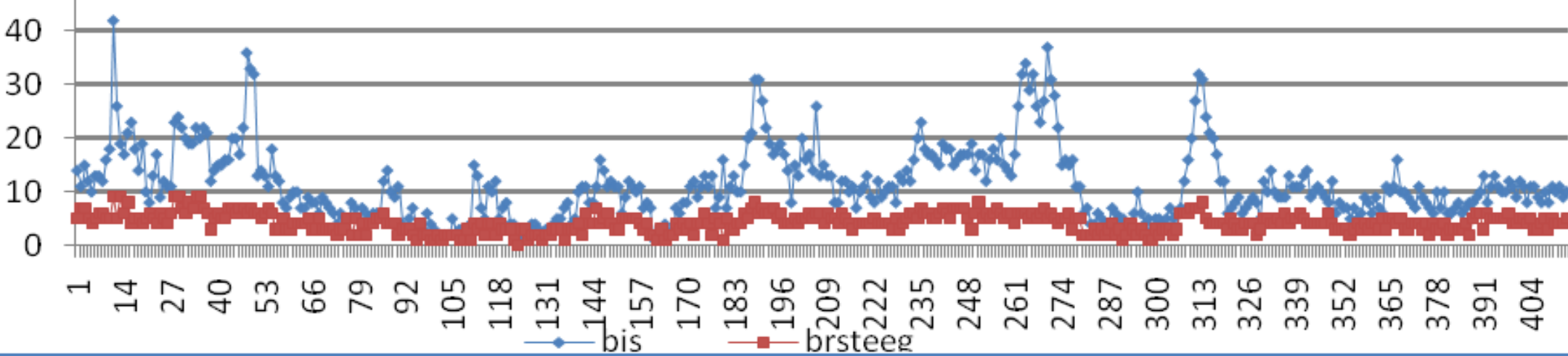
MSN, RN, CCRN, CNRN, CCNS, CCTC, FAAN

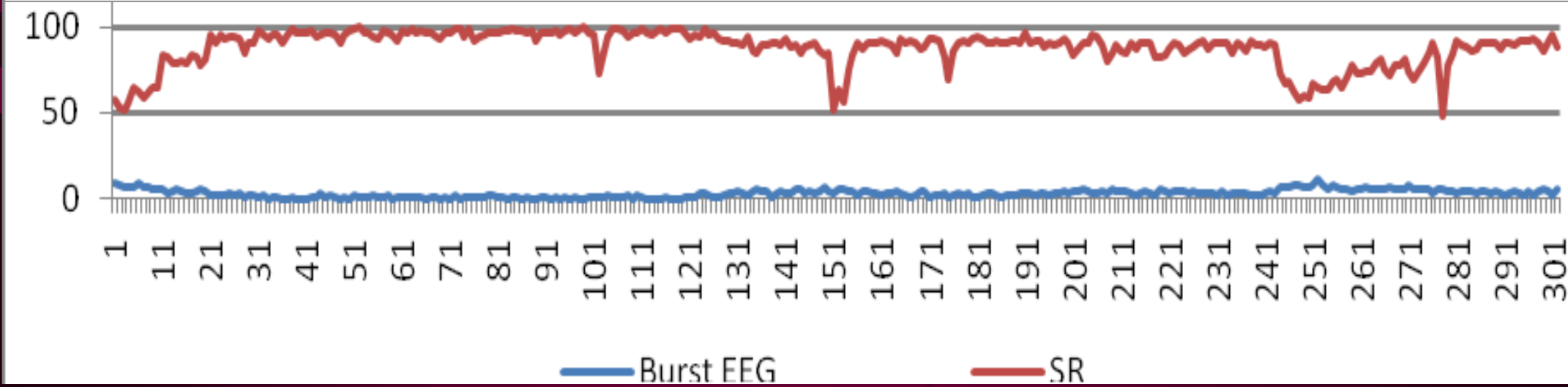
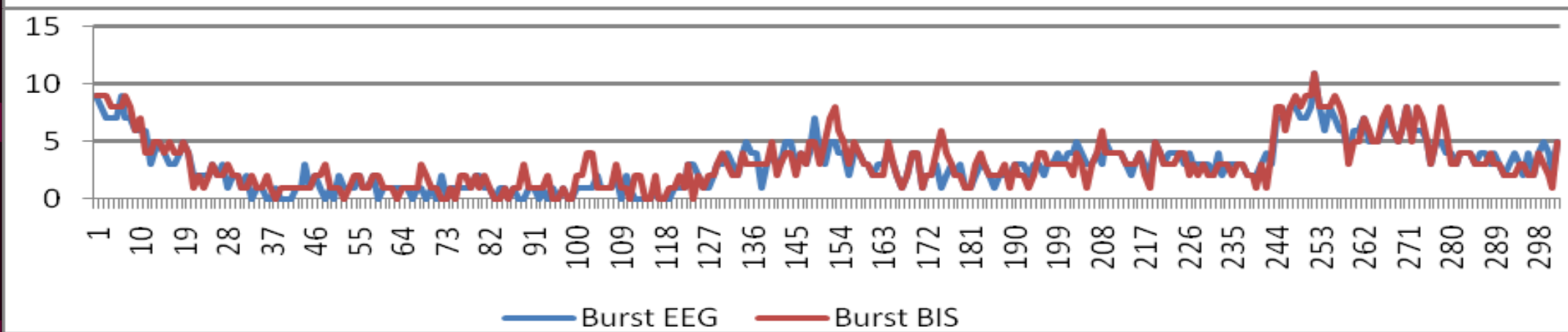
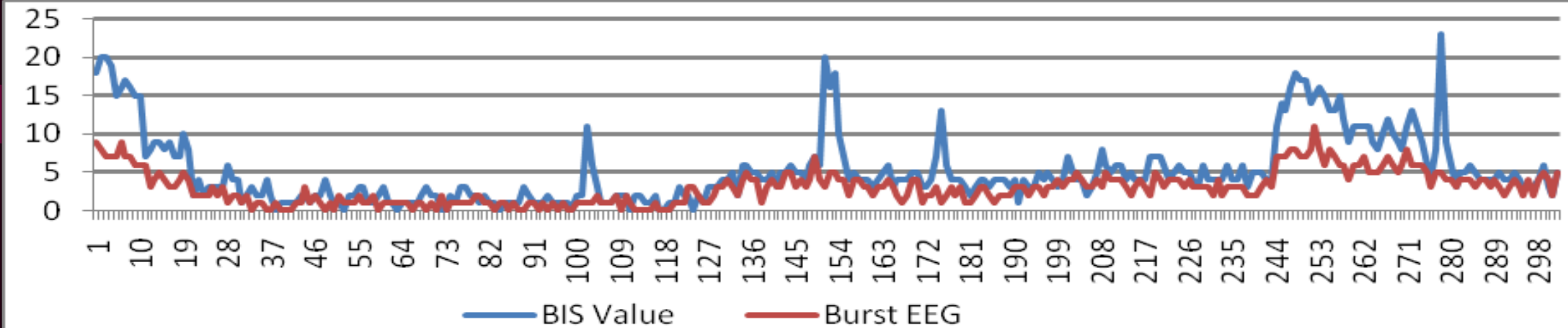
Study Purpose

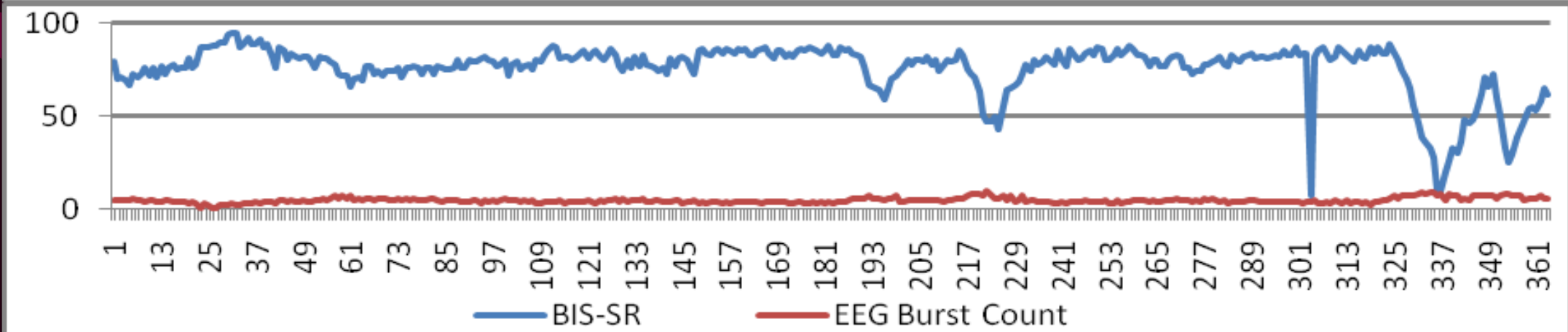
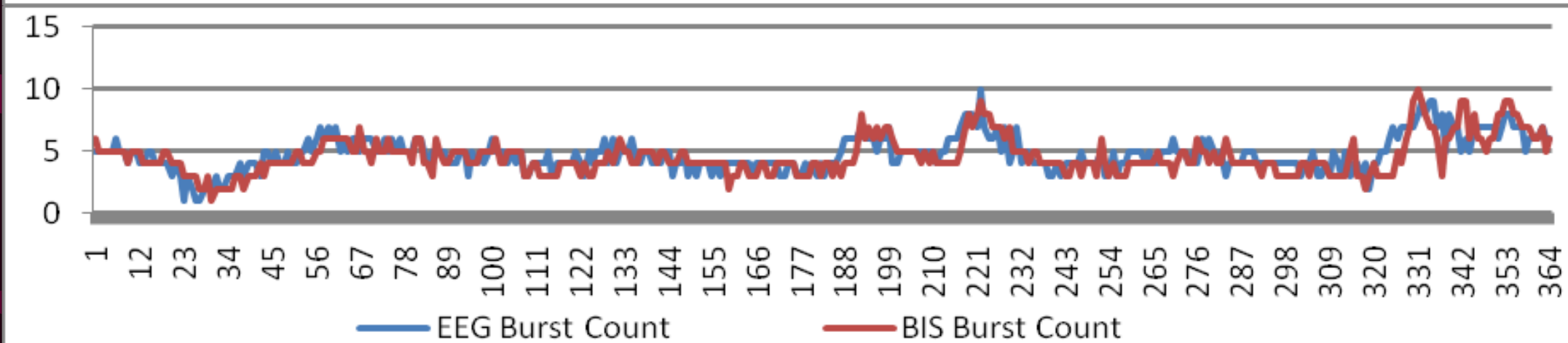
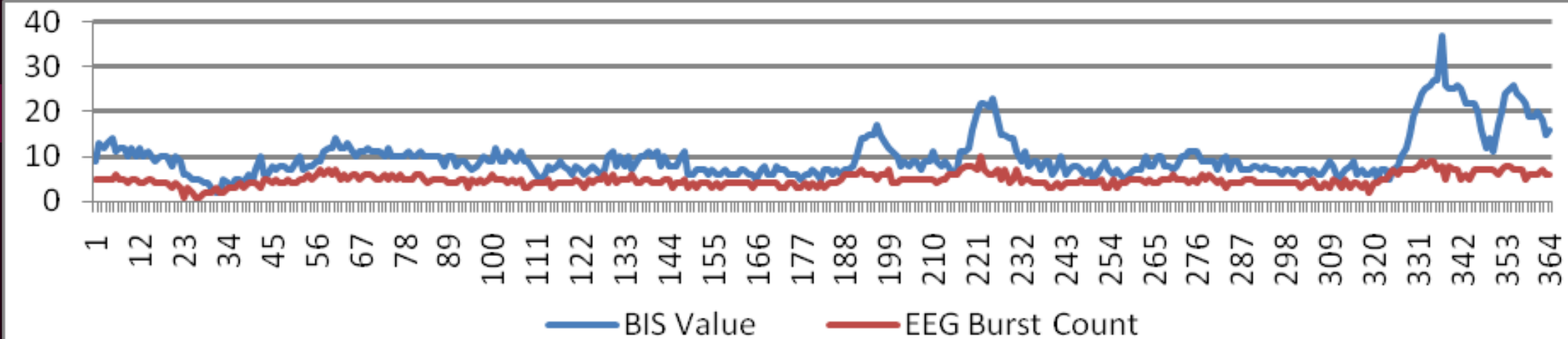
- Determine predictive value between bispectral index (BIS) and EEG in determining degree of burst suppression during drug-induced coma.
- Prospective, observational cohort study.
 - 4 Consecutive patients receiving drug-induced coma for intracranial hypertension or status epilepticus.

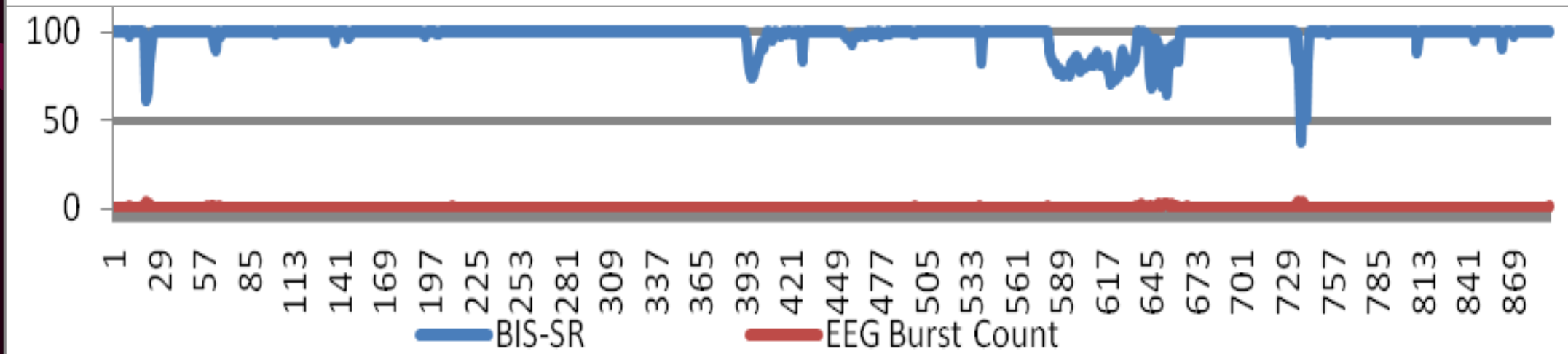
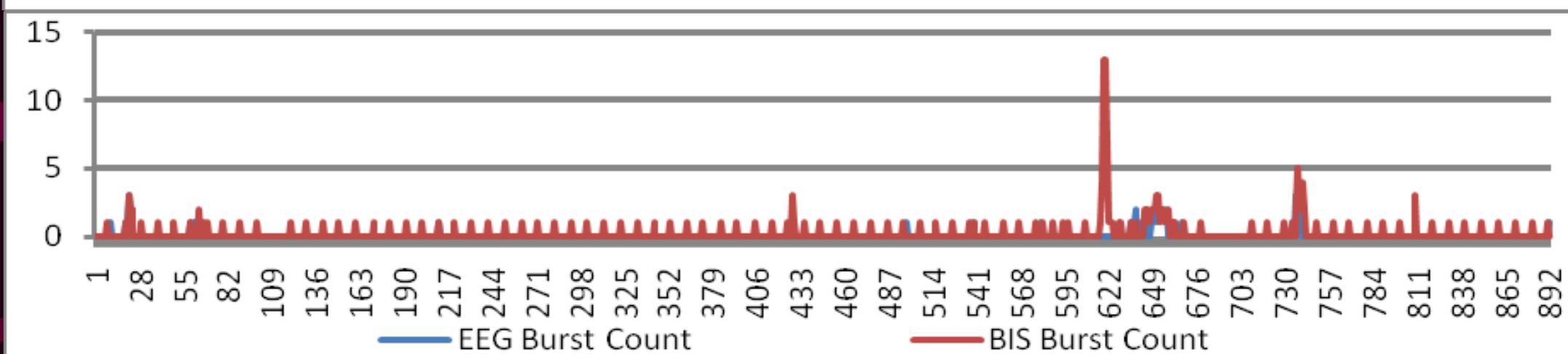
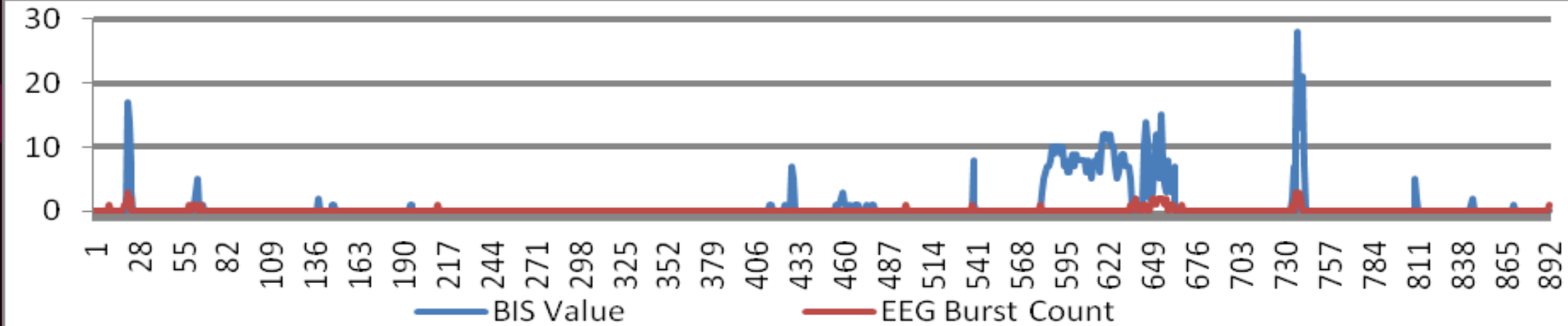
Results

- 1,972 data sets/33 hours EEG/BIS monitoring.
- EEG burst count/BIS SR: Regression coefficient of 0.6673. EEG burst count and BIS SR: Spearman rank coefficient of 0.8727
- EEG vs BIS burst count: Pearsons correlation coefficient 0.8256.
- BIS value versus EEG burst count: Spearman's rank coefficient 0.8810/Pearsons correlation coefficient of .6819.









Conclusions

- Statistical testing/graphing variables:
 - Strong correlation and predictive value during drug-induced coma.
 - Study supports using BIS, SR, and burst count to predict EEG supp. during drug-induced coma
- Limitations:
 - Sample size-Limited ability to generalize results.
 - Homogenous study sample-Wider variability in injuries/ages needed to generalize results.

QUESTIONS???