

Poster P193

Continuous EEG and Pupillometry abnormalities in Acute Liver Failure

Micaela Shachter, Valarie Jean Harmon, Feras Akbik, Hiba Arif Haider, Ram Subramanian, Prem Kandiah

Emory School of Medicine – Atlanta, GA

Introduction

We aim to characterize pathologic changes in cEEG and pupillometry observing attenuation in the normal pupillary index (NPI) in patients with heterogeneous causes of acute liver failure (ALF).

Methods

Pupilometer readings were dichotomized to high and low NPI responsiveness, with a threshold NPI of 3.5. A threshold of 20% of total NPI recordings below 3.5 was used as a cutoff for group comparison.

Results

4 patients with a >20% low NPI responsiveness had burst suppression. 8 patients had low NPI responsiveness in <20% of recordings had slowing on cEEG. The increased frequency of low NPI responsiveness appeared to correlate with the occurrence of burst suppression ($P<0.05$).

Conclusion

In the absence of structural or pharmacologic triggers, these changes likely reflect metabolic suppression from hepatic encephalopathy.