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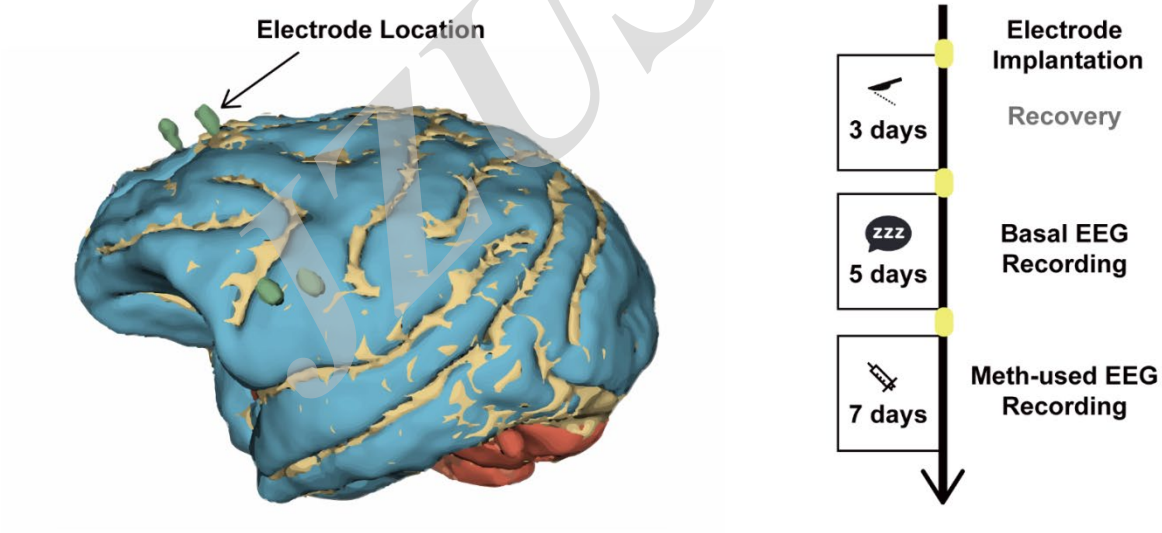
Competitive roles of slow/delta oscillation-nesting-mediated sleep disruption under acute methamphetamine exposure in monkeys

Key words: Amphetamine; Sleep stage; Slow oscillation (SO); Delta oscillation; Addiction; Electroencephalogram (EEG)

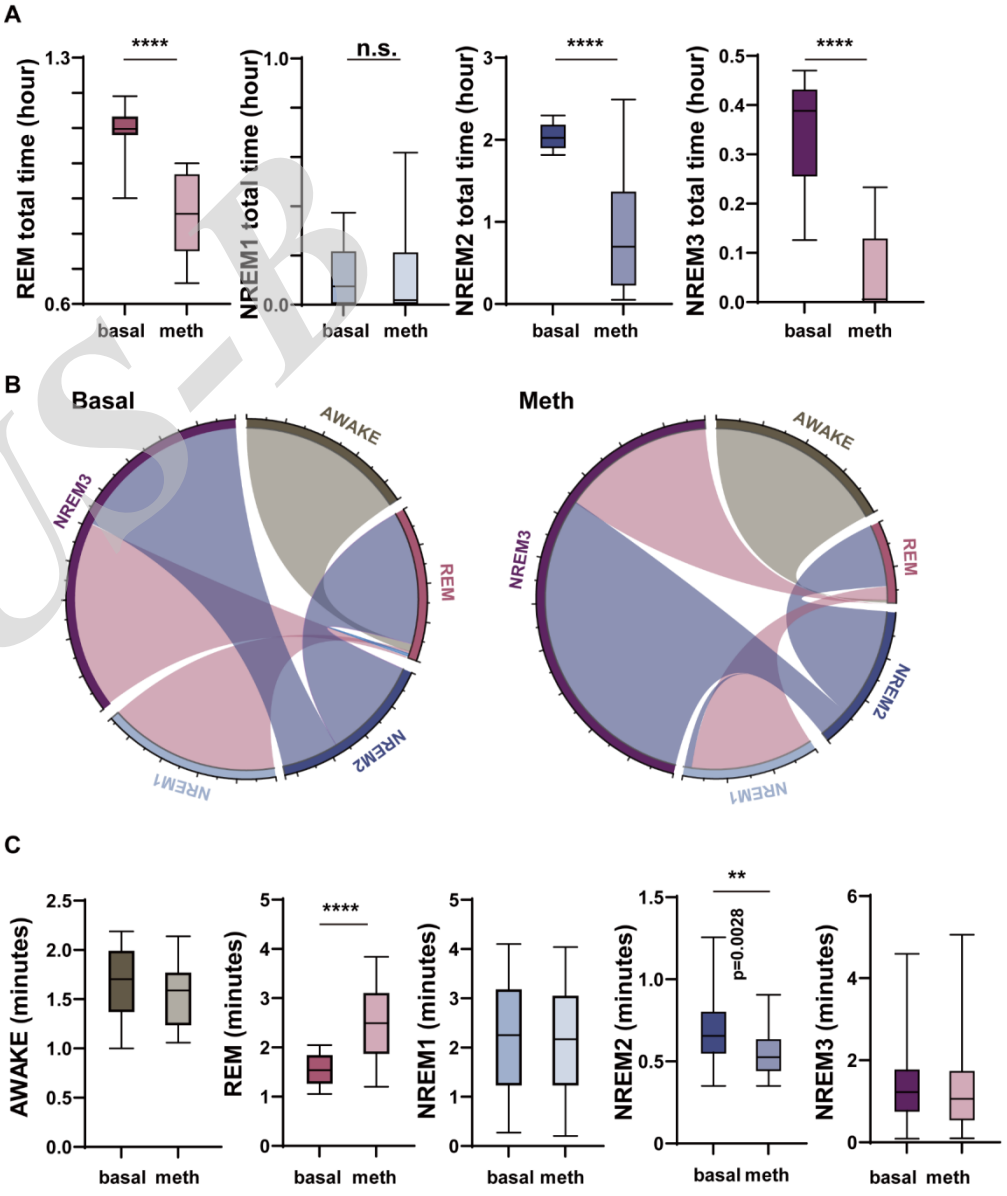
Research Summary

The document summarizes a study that investigated the impact of acute methamphetamine exposure (AME) on sleep homeostasis in non-human primates using electroencephalogram (EEG) recordings:



Innovation points

- AME led to a significant decrease in both rapid eye movement (REM) and non-REM (NREM) sleep, indicating a reduction in total sleep time, sleep quality, and disruption of sleep homeostasis.
- AME specifically impaired the NREM2 stage, with a significant decrease in the duration of NREM2 sleep.



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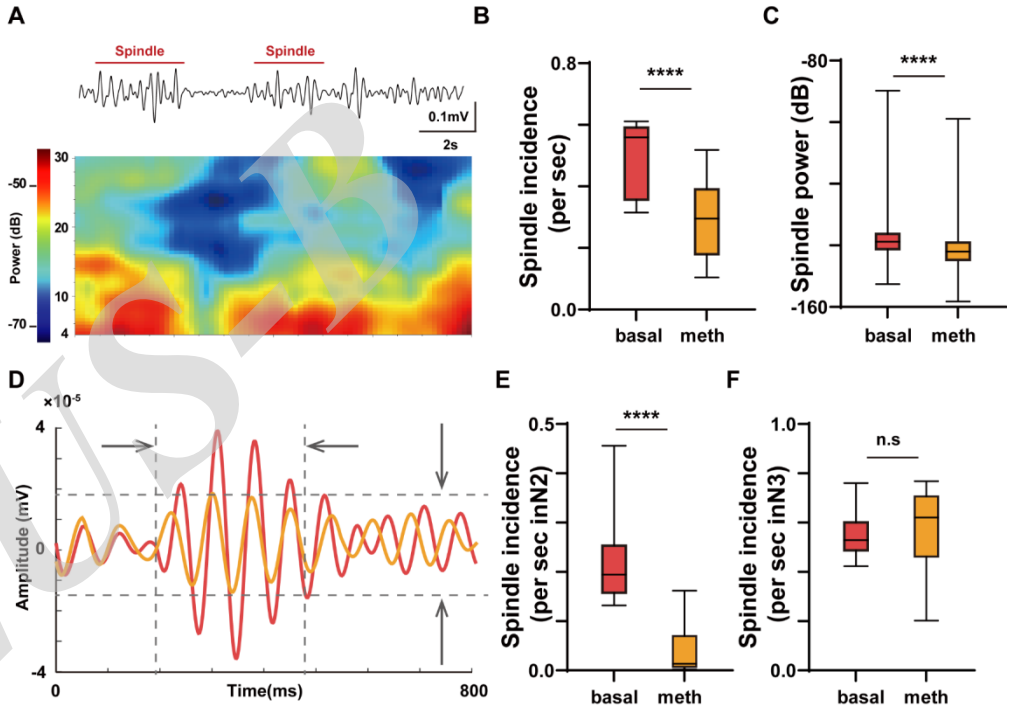
Innovation points

- **AME attenuated sleep spindle waves, particularly in the NREM2 stage, which are crucial for maintaining sleep stability.**



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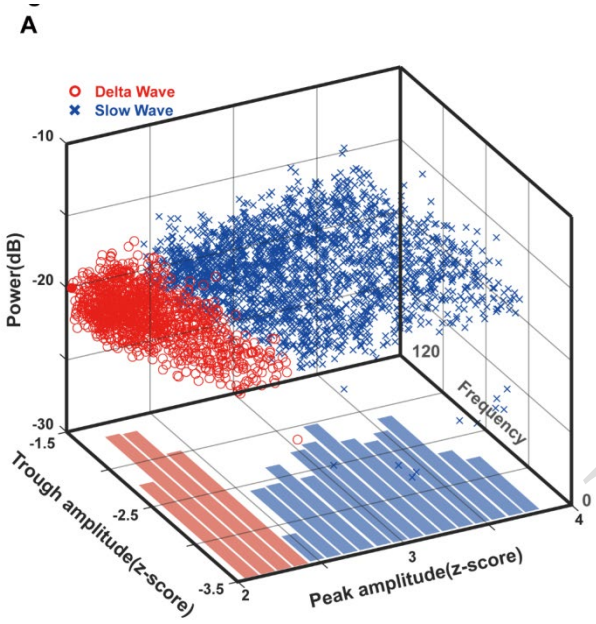
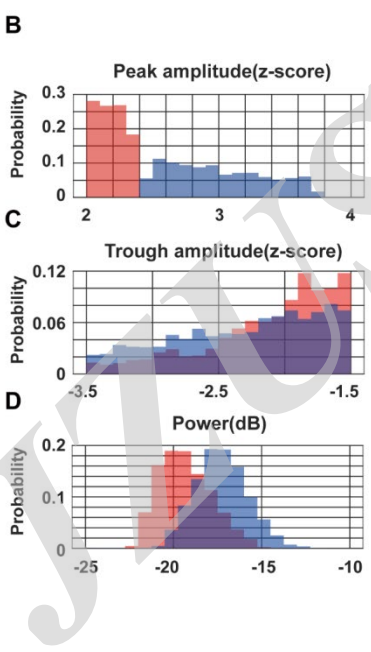
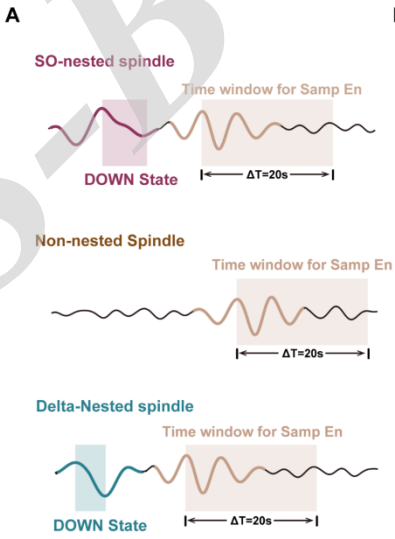
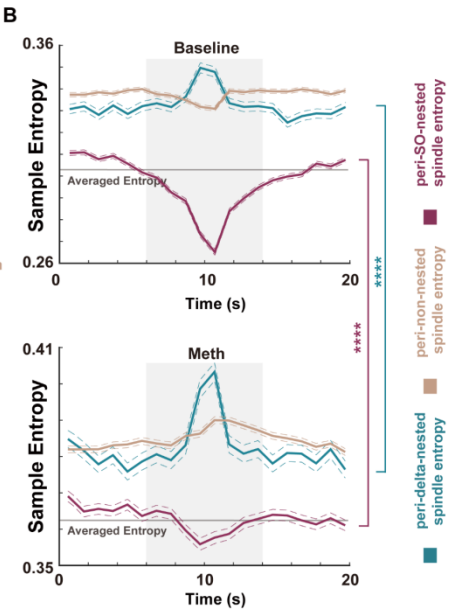
Innovation points

- **AME differentially affected delta oscillations and slow oscillations (SOs)**









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