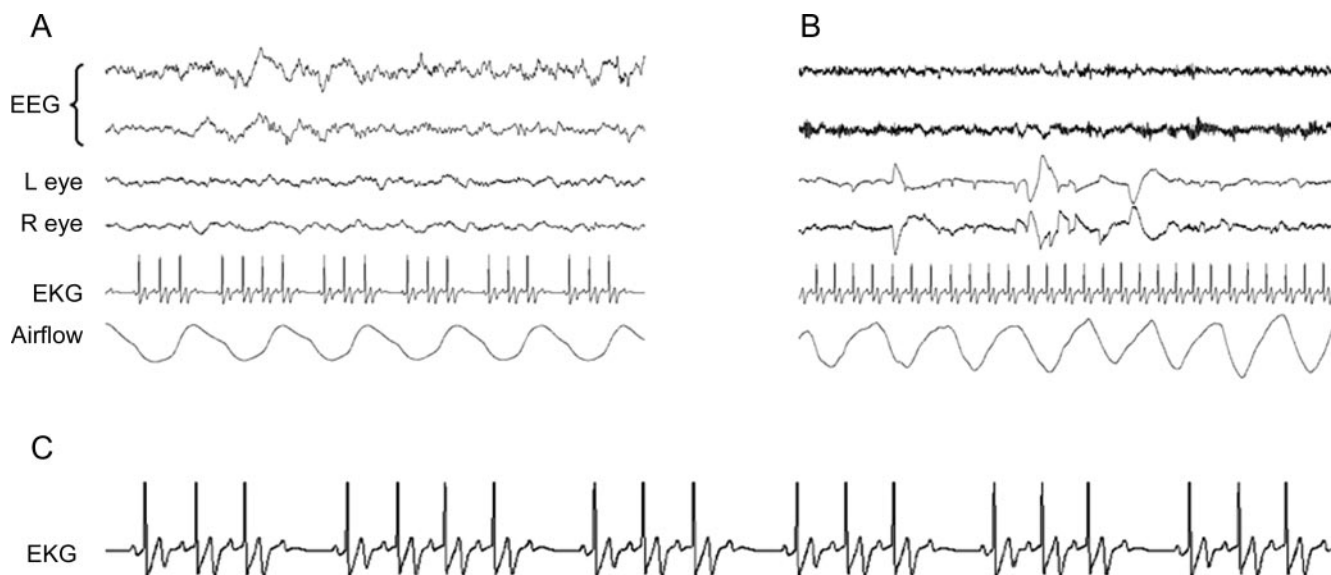


Sleep-specific atrioventricular block

Figure Sleep study: Asleep (A) and awake (B)



A 39-year-old man presented to the sleep laboratory for evaluation of intermittent difficulty sleeping. His sleep study was essentially normal, with exception of the electrocardiographic tracing (ECG), which demonstrated second-degree atrioventricular block (figure, A, and detail in C). A screening 12-lead ECG was normal, when obtained when the patient was awake. The patient had no cardiac symptoms.

Strikingly, this arrhythmia was present continuously, regardless of sleep stage, except during the brief times awake in that night's study (figure, B). Therefore, this finding is likely sleep dependent, rather than resulting from circadian influences. (For a review of the interaction between circadian biology and a variety of cardiac arrhythmias, see reference 1.) In fact, one could reliably discern whether the patient was awake or asleep throughout the night, simply by looking for the presence or absence of conduction block on the ECG. This finding widens the scope of arrhythmias seen in sleep, currently reported in severe apnea,² and in REM sleep.³

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