

Spironolacton restore sleep architecture - a case report -

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Observation

Since more 15 years Mrs V. was followed for a primary sleep hypersomnia. Her first complaint in 2003 is daytime somnolence (Epworth Score of 20/24).

Clinical investigations with PSG and MSLT were performed in 2003, 2004, 2010, 2014 and 02-2018. Mean latency was higher than 8 min in 2003, 2004 and 2018 but lower in 2010, 2014. All PSG shown a sleep fragmentation (30 arousal/h), a reduction of REM sleep duration (8-10% of TST) (fig1). All ECG signal showed an ST elevation (fig2).

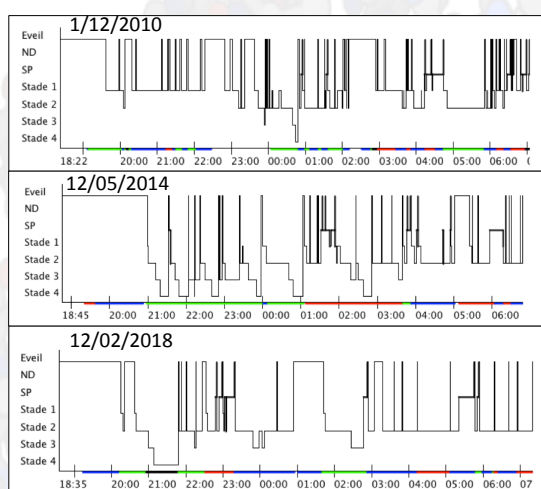


Fig1 – Ref hypnogram from 2010, 2014, 2018

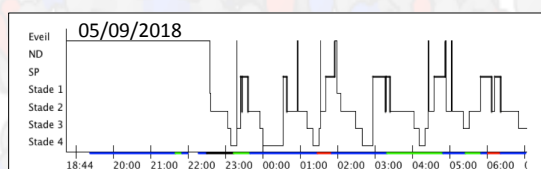


Fig3 – Hypnogram from 2018 after spironolacton



Fig2 – PSG recording showing an ST elevation

As she presents cardiac (hypertension) and psychiatric (bipolar disease) comorbidities, her cardiologist introduced a treatment by Spironolactone at the beginning of 2018. To note, her HLA phenotype is DR11/DR13 DQ03/03.

A new polysomnography was performed in 09-2018. Very surprisingly, there is an improvement in sleep architecture with a significant reduction in the number of arousal (7/h) and an increase in the duration of REM sleep (21% of TST) (fig3).

Discussion

Spironolactone is an antihypertensive medication with an action on mineralo-corticoid receptor blocker (MRB). It is widely use in resistant hypertension. Some authors described its potential protective factor for obstructive apnea syndrome. (1,2)

Considering chronobiology, MRB is known to improve blood pressure circadian rhythm in animal or human. (1,3) Furthermore, a sleep endocrine study (4) shows a reduction of nocturnal plasma GH maximum after sleep onset.

Spironolactone role on sleep architecture is not well described. A previous study (5) reports that spironolactone had no considerable effects on sleep EEG. But our observation seems to be contradictory.

Improvement of chronobiological rhythms appears to be an effect of MRB. It is necessary to complete this case report with further studies.

Bibliography :

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