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# Spinal Cord Stimulator Induced Artifact During a Sleep Study

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# Spinal Cord Stimulator Induced Artifact During a Sleep Study

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### Introduction

Chronic pain patients often complain of insomnia. Sleep studies have become an integral part of diagnosing sleep disturbances among patients suffering from insomnia and extremely useful in diagnosing disruptive sleep patterns.

#### **Methods**

This was an observation that occurred during a sleep study on a chronic pain patient being evaluated for sleep apnea.

#### Results

Utilizing a standard protocol for an observational overnight sleep study, the patient was monitored and evaluated for sleep apnea. It was noted there was a continual disturbance in the EEG pattern with excessive periodic limb movements.

## Conclusions

The patient was using their spinal cord stimulator, which was implanted for a diagnosis of chronic neuropathic lumbar radiculopathy. Despite numerous periodic limb movements, there was minimal disruption in REM sleep cycles felt to be attributed to the use of the spinal cord stimulator. The stimulators pattern was also picked up on the study and identified as "interference".

A restorative sleep pattern, with an identifiable "interference" and little disruption of REM sleep would make one consider future research for the use of spinal cord stimulation in patients with an underlying diagnosis of restless leg syndrome.

Interference may be more common in sleep studies as the use of spinal cord stimulation broadens for patients suffering from chronic pain.

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