

# Adult NREM Parasomnia Associated with Lancing Throat Pain

Jitka Bušková, M.D., Ph.D.; Karel Šonka, Prof, D.Sc.

*Sleep Disorders Center, Department of Neurology and Center of Clinical Neuroscience, 1st Faculty of Medicine, Charles University, Prague, Czech Republic*

CASE REPORTS

We report the case of a 30-year-old woman presenting with dangerous nocturnal NREM episodes with the clinical feature of lancing throat pain. We hypothesize that the pain may have represented sensory hallucination analogous to commonly recognized visual images associated with NREM parasomnias. This case is also unusual for probable psychological triggers

that could play a role in the pathogenesis of the disease, as evidenced by successful psychotherapy.

**Keywords:** NREM parasomnia, pain, psychotherapy

**Citation:** Bušková J, Šonka K. Adult NREM parasomnia associated with lancing throat pain. *J Clin Sleep Med* 2014;10(8):925-926.

NREM parasomnias are arousal disorders emerging during slow wave sleep characterized by greatly variable behavioral and emotional expression.<sup>1</sup> These episodes are usually followed by amnesia, but a minority of adult patients recall complex mental activity immediately before and during episodes.<sup>2</sup> Thus far, only one case of such an episode associated with pain perception has been described.<sup>3</sup> We report a case of severe NREM parasomnia manifested by the previously unreported feature of lancing throat pain.

## REPORT OF CASE

The patient is a 30-year-old, healthy young woman with a high school education, now on maternity leave with her first child. She has suffered from “calm somnambulism” since childhood with no other medical history.

Her husband arranged a consultation in our sleep clinic with regard to dangerous behavior exhibited by his wife while asleep. The episodes typically occurred within the first two hours of sleep, and presented with sudden sat up straight in bed and somniloquy that suggestively corresponded to dreamlike visual images. At the beginning of the episode that prompted consultation, the subject began to dream that she was swallowing various indigestible objects (such as scissors, socks, dogs, needles, worms, pet hair), accompanied by terribly unpleasant subjective feelings and lancing throat pain. She experienced this sensation so dramatically that she spent some time sitting up in bed vigorously trying to remove the object from her throat with her hands until she choked and gagged, injuring her throat, with pain persisting for a week. She was confused for several minutes after the episode and repeatedly asked her husband to remove the object from her throat. There was no identified biopsychosocial trigger for these episodes from the preceding day.

The last of these sporadic episodes involved a potential threat to their daughter. Their two-year-old daughter was sleeping with her parents as she had influenza. The episode started around midnight. The subject suddenly sat upright in bed, grabbed her

daughter and forcibly opened her mouth, trying to insert her fingers into her mouth. Her husband acted quickly to protect their daughter. When he succeeded in waking his wife, she said that she had dreamt that her daughter swallowed a coin. She was not sure whether or not it was a dream for an entire day following the episode.

Video-polysomnography showed sleep of normal duration with 7 sudden spontaneous awakenings from slow wave sleep (see the hypnogram, **Figure 1**) that were not associated with any parasomnia-related behavior. No other sleep pathology was detected by standard recording and scoring.<sup>4</sup> Psychological examination performed by a board-certified psychologist showed no personality disorder, and no clinically significant depression or anxiety. Neurological and ENT investigations and brain MRI were normal.

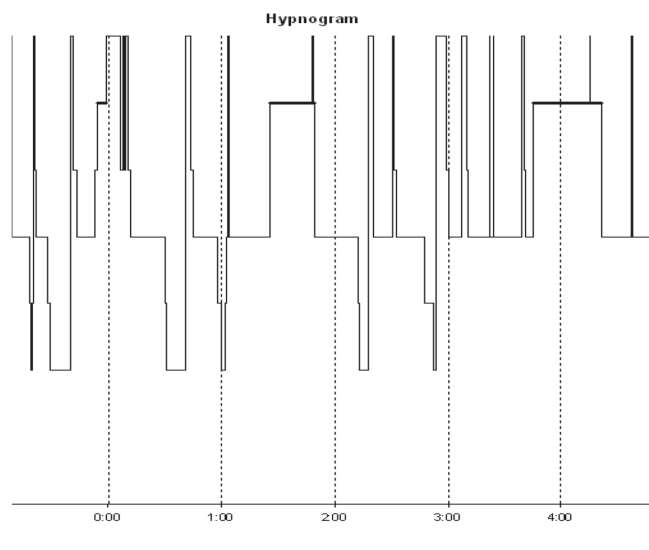
The patient chose to undergo psychotherapy rather than pharmacotherapy. During seven sessions of supportive psychotherapy, she spoke about an early traumatic experience for the first time in her life; sexual assault at 7 years of age. The offender was a close relative living in the same house. The patient also described an object forced into her mouth to prevent her from screaming during the assault. The psychotherapy sessions were focused on subconscious thoughts and emotions, including emotional conflicts possibly related to the nocturnal episodes. With this intervention, she experienced six months without parasomniac episodes.

## DISCUSSION

We report a case of dangerous NREM parasomnia behavior with childhood onset, but characterized by a progressive course in adulthood. The first interesting aspect of this case is that the most severe NREM episodes are associated with long-lasting, particularly vivid, coherent dream recall. NREM dreams are usually reported as being shorter, less complex, less vivid and more “thought like” than REM dreams.<sup>5</sup>

Another very interesting aspect of this case is the complex feeling of severe pain provoked by dangerous objects in the

**Figure 1**—Hypnogram showing repeated spontaneous awakenings from delta-sleep stage.



throat. This behavior led to vigorous behavior during the episode, and even injury. In the literature, we have found only one case presenting with pain in association with a NREM parasomnia.<sup>3</sup> In the previous case report, no associated psychological, physical, or sexual trauma was disclosed. The patient recalled an accompanying sense of “fighting to stay alive” associated with intense panic and fast, regular palpitations. However, the patient was not able to identify any triggers for these episodes, and neither the patient nor her husband considered her to be stressed, anxious, or depressed. We postulate that the sensory cortex was activated in a similar manner as in our case.

Triggers are another interesting topic. We consider the experience of trauma as an important factor in the pathogenesis of this disease, as has been described in some patients with NREM parasomnias.<sup>6</sup> This assumption is supported by efficient psychotherapy in our patient and in those cases described formerly, measured by reduced frequency and severity of episodes.<sup>7</sup> We

expect that not only the emotional character of the frightening visual image,<sup>2</sup> but the traumatic experience itself could be one of the triggers of NREM parasomnias. Future studies are needed to recognize the mechanisms through which psychological conflicts act on sleepwalking, which may help identify the best treatment protocol.

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## ACKNOWLEDGMENTS

This project was supported by VZ-MSM 0021620849, PRVOUK P26/LF1/4.

## SUBMISSION & CORRESPONDENCE INFORMATION

Submitted for publication December, 2013

Submitted in final revised form April, 2014

Accepted for publication April, 2014

Address correspondence to: Jitka Bušková, M.D., Ph.D., Department of Neurology and Center of Clinical Neuroscience, 1st Faculty of Medicine, Charles University, Kateřinská 30, 12800 Prague 2 Czech Republic; Tel.: +420 732 325 637; Fax: +420 224 922 678; E-mail: vankjit@seznam.cz

## DISCLOSURE STATEMENT

This was not an industry supported study. The authors have indicated no financial conflicts of interest.