

Complex sexual behaviors during sleep as a manifestation of epilepsy: a case series

Berthold R Voges, Friedhelm C Schmitt, Patrick M House, Stefan R Stodieck, Carlos H Schenck

Sleep, Volume 42, Issue 3, March 2019, zsy233, <https://doi.org/10.1093/sleep/zsy233>

Published: 21 November 2018 **Article history** ▼

Views ▼ Cite Permissions Share ▼

Abstract

Study Objectives

Complex sexual behavior during sleep (CSBS) is a well described clinical entity in nonrapid eye movement (NREM) sleep parasomnias (i.e. sexsomnia). We report a retrospective case series of CSBS as clinical manifestation of epileptic seizures and compare them with the semiology of sexsomnia.

Methods

Video-electroencephalography (EEG)-monitoring data of patients with epileptic and nonepileptic paroxysmal events from one tertiary epilepsy center between 2013 and 2016 were retrospectively reviewed. Clinical features and presurgical, electroclinical, and follow-up data are presented and then discussed in the context of other published cases.

Results

From 4,629 patients, 6 patients had CSBS. EEG, single photon emission computed tomography (SPECT), magnetic resonance imaging (MRI), and histopathology confirmed an epileptic origin in four female patients, with temporal or frontal seizures. Two male patients had sexsomnia. None of the epilepsy patients had parasomnias. Clinical criteria to differentiate epileptic from parasomnic CSBS were: events also occurred out of wakefulness; current presence of additional nonsexual manifestations of epilepsy; sexual behavior only as part of a broad spectrum of emotional and motor automatisms; stereotyped behavior pattern without modulability by bystanders; unarousability during the event; no completion of sexual intercourse. The accuracy of the clinical diagnosis was improved by the development of an algorithm comparing patients' fulfillment of the criteria of epilepsy versus parasomnia.

Conclusions

In our cohort, CSBS was a rare ictal phenomenon in temporal or frontal seizures. Symptomatological similarities with sexsomnia might be explained by the same phylogenetically primitive "central pattern generator" manifesting in ictal CSBS by activation and in sexsomnia by disinhibition. Ictal CSBS should be considered in the differential diagnosis of sexsomnia.

[parasomnias](#), [sexsomnia](#), [sexual behaviors of sleep](#), [EEG](#), [temporal lobe](#), [frontal lobe](#), [focal seizure](#)

© Sleep Research Society 2019. Published by Oxford University Press on behalf of the Sleep Research Society. All rights reserved. For permissions, please e-mail journals.permissions@oup.com.

This article is published and distributed under the terms of the Oxford University Press, Standard Journals Publication Model

Topic:

[epilepsy](#)

[seizures](#)

[electroencephalography](#)

[follow-up](#)

[parasomnia](#)

[sex behavior](#)

[wakefulness](#)

[diagnosis](#)

[sleep](#)

[temporal lobe](#)

Issue Section: [Neurological Disorders](#)

You do not currently have access to this article.

Sign in

Don't already have an Oxford Academic account? [Register](#)

Oxford Academic account

Email address / Username [?](#)

Password

[Sign In](#)

[Forgot password?](#)

[Don't have an account?](#)

Sleep Research Society members



[Sign in via society site](#)

American Academy of Sleep Medicine members



[Sign in via society site](#)

Sign in via your Institution

[Sign in](#)

Purchase

[Subscription prices and ordering](#)

Short-term Access

To purchase short term access, please sign in to your Oxford Academic account above.

Don't already have an Oxford Academic account? [Register](#)

Complex sexual behaviors during sleep as a manifestation of epilepsy: a case series - 24 Hours access

EUR €36.00

GBP £28.00

USD \$45.00

Rental



This article is also available for rental through DeepDyve.



[View Metrics](#)

Email alerts

[New issue alert](#)

[Advance article alerts](#)

[Article activity alert](#)

[Subject alert](#)

[Receive exclusive offers and updates from Oxford Academic](#)

More on this topic

Sleep and Sex: What Can Go Wrong? A Review of the Literature on Sleep Related Disorders and Abnormal Sexual Behaviors and Experiences

Review of *The Science of Sleep: What It Is, How It Works, and Why It Matters*

Sleep and timing of death by suicide among U.S. Veterans 2006–2015: analysis of the American Time Use Survey and the National Violent Death Reporting System

Combination therapy with mandibular advancement and expiratory positive airway pressure valves reduces obstructive sleep apnea severity

Related articles in

Google Scholar

Related articles in PubMed

Higher Order Spectral Analysis of scalp EEG activity reveals non-linear behavior during rhythmic visual stimulation.

Linnaeus was not an evolutionary biologist: The importance of motivations in classification systems.

Neurocysticercosis and HIV Infection: what can we learn from the published literature?

Religiosity and spirituality in patients with epilepsy.

Citing articles via

Google Scholar

CrossRef

Latest | Most Read | Most Cited

Characterization of the sleep disorder of anti-IgG disease

Actigraphic detection of periodic limb movements: development and validation of a potential device-independent algorithm. A proof of concept study

Simultaneous tonic and phasic REM sleep without atonia best predicts early phenotypic conversion to neurodegenerative

disease in idiopathic REM sleep behavior disorder

Residual symptoms after natural remission of insomnia: associations with relapse over 4 years

Sleep duration and fragmentation in relation to leukocyte DNA methylation in adolescents

Looking for your next opportunity?

Chair of Pain Research
Boston, Massachusetts

PEDIATRIC EMERGENCY PHYSICIAN
Saskatoon Shines, Saskatchewan

Endowed Chair of Occupational Health/Medicine
Saint John, New Brunswick

CHIEF OF THE DIVISION OF ALLERGY, IMMUNOLOGY AND INFECTIOUS DISEASE
New Brunswick, New Jersey

[View all jobs](#)

OXFORD
UNIVERSITY PRESS

About SLEEP

Editorial Board

Author Guidelines

Facebook

Twitter

Contact Us

Purchase

Recommend to your Library

Advertising and Corporate Services

Journals Career Network

Online ISSN 1550-9109

Print ISSN 0161-8105

Copyright © 2019 Sleep Research Society

About Us

Contact Us

Careers

Help

Access & Purchase

Rights & Permissions

Open Access

Connect

Join Our Mailing List

OUPblog

Twitter

Facebook

YouTube

Tumblr

Resources

[Authors](#)

[Librarians](#)

[Societies](#)

[Sponsors & Advertisers](#)

[Press & Media](#)

[Agents](#)

Explore

[Shop OUP Academic](#)

[Oxford Dictionaries](#)

[Oxford Index](#)

[Epigeum](#)

[OUP Worldwide](#)

[University of Oxford](#)

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide

Copyright © 2019 Oxford University Press

[Accessibility](#)

[Get Adobe Reader](#)

[Cookie Policy](#)

[Privacy Policy](#)

[Legal Notice](#)

[Site Map](#)