International Journal of Advances in Medicine
Tiwari A et al. Int J Adv Med. 2015 Feb;2(1):54-55
http://www.ijmedicine.com
pISSN 2349-3925 | eISSN 2349-3933
DOI: 10.5455/2349-3933.ijam20150213

Case Report

Kleine-Levin syndrome: a case report

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Received: 27 November 2014
Accepted: 24 December 2014

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ABSTRACT

Kleine-Levin syndrome is characterized as a periodic hypersomnia crisis as well as dietary and variable significant psychiatric symptoms. This case report is of 15 year boy who presented with characterstic features of hypersomnia, hyperphagia, affective features like irritability and cognitive disturbances in an episodic manner with spontaneous remission. Due to the above clinical presentation we made the diagnosis of Kleine-Levin syndrome in this patient who was started on psychostimulant and responded well on these medications.

Keywords: KLS, Sleep disorders, Periodic hypersomnia

INTRODUCTION

Kleine-Levin Syndrome (KLS) was first described more than 80 years ago. Multiple cases of recurrent hypersomnia were first reported in Frankfurt by Willi Kleine in 1925.[1] Max Levin (1929, 1936) emphasized the association of periodic somnolence with morbid hunger in 1929 and 1936.[2]

International classification of sleep disorders-3 criteria (2013) states following five points for diagnosis:

A. At least two recurrent episodes of excessive sleepiness of 2 days to several weeks

B. Episodes recur at least 1 per 18 months

C. Normal alertness, cognitive function, behavior and mood between episodes

D. At least one of these during an episode:

Cognitive dysfunction
Altered perception, derealization
Eating disorder (anorexia or hyperphagia)
Disinhibited behavior (such as hypersexuality)

E. Symptoms not better explained by other disorder.[3]

Episodes are separated by weeks or months of normal sleep and behavior. KLS primarily affects adolescent boys and has an unpredictable course of recurrence and remission that lasts for years and most often mysteriously disappears in young adults.[4,5] An underlying hypothalamic pathology is suggested by the critical role of this structure in regulating sleep, appetite, and sexual behaviors; however, no consistent hypothalamic abnormalities have been identified.[6] In a review article published in 2005 of 186 cases only 10 cases are reported from India.[6]

We will here discuss a case of KLS who presented in our outpatient department with characteristic features suggestive of this disorder..

CASE REPORT

A 15 years old boy studying in 9th standard, hailing from a Muslim joint family, with uneventful birth and developmental history, without past and family history of

neurological and psychiatric illness, presented with an episodic illness of 2 years duration with each episode lasting for 7 to 8 days at the interval of 1-2 months. During each episode, patient complained of increased sleepiness. He was found to be sleeping more than the usual with average sleeping time of 16 to 18 hours a day. It was difficult to arouse him while he was sleeping. On waking up he was generally irritable and angry. There was also decreased interaction with family members and friends and he would avoid any recreational or play activities. During these episodes his eating pattern was also changed. He would eat unusually more quantity of food and was taking 7 to 8 meals in the duration of 4 to 5 hours of his wakefulness. However, he was maintaining his personal hygiene during this period. On admission in our ward, we noticed that most of the time during the day he remained asleep and when on waking there was increase in demand of food. His interaction with the family members also reduced significantly from the pre morbid state and would remain withdrawn most of the time with occasional irritability over trivial issues. These symptoms of hypersomnia, hyperphagia and affective symptoms started 5 days prior to the day of admission. He was started on psychostimulant (modafinil) and significant improvement in his behavioral symptoms was noticed from 3rd day onwards. He was subjected to routine laboratory investigations for blood counts, thyroid function tests, electroencephalogram (EEG) and CT scan head. All these investigations were found to be within normal limits. On the basis of clinical evaluation and ruling out other causes we diagnosed him as a case of Kleine-Levin syndrome according to the diagnostic criteria given in the International classification of sleep disorders.

DISCUSSION

Kleine-Levin syndrome is a peculiar disorder that primarily affects males but up to a quarter cases are now reported in females.[7] This disorder is conventionally considered as a neuro-psychiatric disorder and has been classified under the category of sleep disorder- recurrent hypersomnia or disorder of excessive somnolence.[8] Episodic hypersomnia and cognitive disturbances constitute the core abnormality, while behavioral, eating and sexual disturbances are more variable. The diagnosis of Kleine-Levin syndrome is based on clinical features alone, as there are no specific laboratory tests that can help in establishing the diagnosis of Kleine-Levin syndrome.[9] The case reported here is considered as an example of Kleine-Levin syndrome because of the episodic cluster of behaviours mainly hypersomnia, hyperphagia and related psychiatric symptomatology.

The patient presented here also showed the typical episodic symptomatology of hypersomnia, hyperphagia and behavioural symptoms and has been diagnosed as a case of Kleine-Levin syndrome. There are very few cases of this syndrome are reported worldwide and further research is needed for proper diagnosis and management of this rare disorder.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Kleine W. Periodische schlafsucht. Monats Psychiatr Neurol. 1925;57:285-320.
2. Levin M. Periodic somnolence and morbid hunger: a new syndrome. Brain. 1936;59:494-594.
3. American Academy of Sleep Medicine. Diagnostic and coding manual. In: AASM, eds. International Classification of Sleep Disorders. 3rd ed. Westchester, Illinois: American Academy of Sleep Medicine; 2013.
4. Critchely M. Periodic hypersomnia and megaphagia in adolescent males. Brom.1962;8S:627-56.
5. Lishman WA. The psychological consequences of cerebral disorder. In: Lishman WA, eds. Organic Psychiatry. 3rd ed. US: Blackwell Sciences Ltd.; 1998: 723-733.
6. Arnulf I, Zeitzer J, File J, Farber N, Mignot E. Kleine-Levin syndrome: a systematic review of 186 cases in the literature. Brain.2005;128:2763-76.
7. Duffy JP, Davison K. A female case of the Kleine-Levin syndrome. Br J Psychiatry.1968;114:77-84.
8. Max H, Rhoda GS, Amir S. Sleep disorders. In: Sadock BJ, Sadock VA, Ruiz P, eds. Kaplan & Sadock's Comprehensive Text Book of Psychiatry, 9th ed. In: Philadelphia: Lippincott William and Lippincott Wilkins; 2007: 2151-2177.
9. Gallinek A. Syndromes of episodic hypersomnia, bulimia and abnormal mental states. JAMA.1954;154:1081-3.

DOI: 10.5455/2349-3933.ijam20150213
Cite this article as: Tiwari A, Agarwal A, Bharti S, Kohli A. Kleine-Levin syndrome: a case report. Int J Adv Med 2015;2:54-5.