

Exploding Head Syndrome with Co-morbid Sleep Apnea

Akbar Shoukat Ali^{1*}, Afroza Aftab² and Arzoo Ajaz³

¹Department of Anaesthesiology, The Aga Khan University Hospital, Karachi, Pakistan

²School of Nursing and Midwifery (SONAM), The Aga Khan University, Karachi, Pakistan

³Department of Pharmacy, Jinnah University for Women, Karachi, Pakistan

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Dear Editor,

The ‘snapping of the brain’, a novel remark for the phenomenon called exploding head syndrome (EHS), is clinically appreciated as a very unusual and benign sensory parasomnia of diverse symptoms, which predominantly includes momentary loud noises of sudden onset that often results in sleep disturbance, sleep fragmentation, and insomnia. The pathophysiological mechanisms governing these episodes are yet to be elucidated. Besides, etiological research findings have been indecisive at present. The precise prevalence rate of EHS is unspecified referable to prominence of isolated cases, mostly communicated as case reports and scarcity of epidemiological studies. Symptomatic heterogeneity (auditory and visual disturbances), severity (chronic manifestation), and episodic infrequencies makes this disease promisingly anxiety-provoking for the sufferers.^{1–3}

We report the first ever case in Pakistan of EHS with associated sleep apnea in a 47-year-old female patient. Patient presented with complaint of brief episodes of jerky arousal during initial stages of sleep due to ear-splitting screaming sounds since the last seven months. Episodes were followed by autonomic instability especially heart pounding and excessive perspiration. In addition, post-episodic confusion, headache, and gasping, which lasts for 15–20 minutes, was reported. Inability to fall asleep for at least one to two hours post-event was also notified. Her past medical history was significant for breast lump. Upon taking family history, nothing was revealed. Her general examination was insignificant except for a complaint of extreme tiredness due

to her professional demands of extended working hours. Neurological assessment was unremarkable. Magnetic resonance imaging investigation was done to unveil any brain pathology but the result was inconclusive.

The patient was diagnosed with EHS using the International Classification for Sleep Disorders-3 (ICSD-3) diagnostic criteria for EHS.¹ In view of her interrupted sleep and published report,⁴ sleep quality was assessed using validated questionnaires and found inadequate; Pittsburgh Sleep Quality Index (Global PSQI score of 13; poor sleep) and Berlin Questionnaire (2 out of 3 positive categories; high risk for obstructive sleep apnea (OSA)).⁵ An overnight sleep study was also carried out to investigate breathing disorder using ApneaLink™ ResMed (an economical Sleep Apnea screening tool).⁶ The patient had a mild sleep apnea (Apnea-Hypopnea Index: 9).

No therapy was instituted and the patient was counseled and educated for the benign nature of the condition. The patient was followed-up for nine months post-visit, and gradual remission of the symptoms was reported.

These findings recommend future studies to assess the exact prevalence and associated factors leading to this rare condition, particularly in underdeveloped countries where such conditions are often misdiagnosed as psychiatric disorders. Also, studies aimed at establishing the link between EHS and sleep apnea, a relatively less researched area will yield better understanding of the disease process and would improve the diagnostic and therapeutic modality.

REFERENCES

1. Sharpless BA. Exploding head syndrome. *Sleep Med Rev* 2014 Dec;18(6):489-493.
2. Ganguly G, Mridha B, Khan A, Rison RA. Exploding head syndrome: a case report. *Case Rep Neurol* 2013 Jan;5(1):14-17.
3. Frese A, Summ O, Evers S. Exploding head syndrome: six new cases and review of the literature. *Cephalalgia* 2014 Sep;34(10):823-827.
4. Okura M, Taniguchi M, Muraki H, Sugita H, Ohi M. [Case of exploding head syndrome]. *Brain Nerve* 2010 Jan;62(1):85-88.
5. Medarov BI, Victorson DE, Judson MA. Patient-reported outcome measures for sleep disorders and related problems: clinical and research applications. *Chest* 2013 Jun;143(6):1809-1818.
6. Erman MK, Stewart D, Einhorn D, Gordon N, Casal E. Validation of the ApneaLink for the screening of sleep apnea: a novel and simple single-channel recording device. *J Clin Sleep Med* 2007 Jun;3(4):387-392.