

A CHILD SUFFERED FROM SLEEPWALKING DEVELOPING AFTER EARTHQUAKE

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INTRODUCTION

Natural disasters, especially earthquakes, often wreak havoc and cause great loss of life and economic losses. Among disasters, earthquakes are one of the most frightening, fatal and uncontrollable disasters (Tahernejad et al. 2023).

On February 6, 2023, Turkey was hit by two powerful earthquakes within 24 hours: a magnitude 7.7 quake in Pazarcık, Kahramanmaraş, followed by a magnitude 7.6 quake in Elbistan. These earthquakes caused widespread destruction, claiming tens of thousands of lives in Turkey and northern Syria, with hundreds of thousands sustaining injuries (AFAD 2023).

Sleep problems like insomnia, short sleep duration, nightmares, disturbed sleep and daytime drowsiness are frequently observed in children and adolescents after natural disasters like earthquakes. Sleepwalking (SW) is a type of parasomnia that walking during sleep, involving numerous complex behaviors, is observed. It typically occurs during the first third of the night on NREM period of sleep (American Psychiatric Association 2013).

This report presents a male case, aged 10 years and 7 months, who developed SW after the earthquakes occurring in Türkiye on 6 February.

CASE REPORT

The patient was a 10-year old male and the 2nd of 3 siblings. He was a 5th grade student. His mother attended the clinic with complaints that the boy woke and began walking at 4 am at night, looking around blankly and talking to himself every night since the earthquakes occurring on 6 February. During this time, he looked confused, and did not respond to those around him. He gave illogical responses to attempts at communication, and appeared not to hear. When asked by the family in the morning, he said he did not remember any of what happened at night. This situation emerged on the first day after the earthquake and every night since then he woke at the same time and wandered inside the house.

Examination of mental state was compatible with sociodemographic features, suitable for his age, conscious and fully oriented in time and space. His mood was euthymic, affect adjusted, and anxious themes related to night waking were dominant in his thoughts.

Hemogram for the case and routine biochemical parameters including iron, iron-binding, ferritin, TSH, T3, T4, B12 and folic acid levels were within normal intervals. With no psychiatric diagnosis according to K-SADS (Kiddie Schedule for Affective Disorders and Schizophrenia), the case was diagnosed with SW in light of anamnesis and DSM-5. Necessary psychoeducation was given to the family. It was ensured that safety precautions were taken at night. The family were warned of the need to keep doors and windows locked, and to ensure no sharp or harmful materials were left in the area. With the aim of controlling NREM sleep and increasing sleep quality, imipramine 25 mg 1*1 was began to patient. Check-up examination 2 weeks later found the majority of clinical symptoms had resolved, and night sleep routine had returned to normal. The patient is still monitored by the clinic.

DISCUSSION

After disasters like earthquakes, sleep problems like insomnia, short sleep duration, nightmares, disturbed sleep and daytime drowsiness are frequently seen in children and adolescents. However SW is not common. The prevalence of psychiatric disorders in children experiencing NREM parasomnia is very low, while the lifetime incidence of parasomnia one time for children aged 13 years is as high as 78% (Laberge et al. 2000). SW typically affects children aged 4 to 8 and often resolves during adolescence. Prevalence rates range from 2-14% in children to 1.6-2.4% in adults (Raja & Raja 2013).

Most studies investigating the psychological impacts of natural disasters on children and adolescent individuals focus on PTSD and depression symptoms. However, it is wrong to think that every child will experience the same psychological problems after natural disasters. Studies concluded that the most frequently observed

psychological impacts in children after natural disasters were PTSD, depression, general anxiety and pathological age reactions (Karabulut & Bekler 2019).

According to a study performed on children aged 12-17 years after earthquakes occurring in 1999, nearly 76% of children were reported to meet the criteria for PTSD within 13 months. Additionally, they reported observing psychiatric problems like disorders related to sleep, behavioral problems, eating disorders and personality changes (Ateş 2004). When the case was interrogated for other psychiatric diseases that may be observed as sleep disorders for differential diagnosis, in spite of the emergence after trauma, due to the lack of reliving the experience, absence of startle signs and still being in the acute period, he did not meet the criteria for PTSD. Similarly, K-SADS confirmed he had no anxiety disorder, depression and other related psychiatric illness accompanying sleep problems.

For a differential diagnosis, we considered sleep terrors, a NREM parasomnia marked by panicked screams, sudden awakenings with fear, and autonomic symptoms (American Psychiatric Association 2013). However, our case ruled out sleep terrors due to the absence of accompanying autonomic symptoms. Restless leg syndrome, often associated with vitamin deficiencies and night leg shaking, was another possibility. Nonetheless, our case had normal clinical parameters and no nighttime leg shaking symptoms.

Current pathophysiological theories accept parasomnia as being a state separation characterized by the simultaneous occurrence of waking and sleep-like activity in the cortical and subcortical areas of the brain (Proserpio & Nobili 2017). Although SW etiology is not clearly

explained, serotonergic neuron activity and hypo-dopaminergic effects have been emphasized. Some psychotropic drugs can trigger SW. Michele and Silvia Raja reported SW in four patients treated with quetiapine. (Raja & Raja 2013). In contrast, a 17-year-old case treated with low-dose quetiapine was also reported (Gill et al. 2011). Our patient was not using any medical treatment. Since benzodiazepine use is not recommended in the acute period after traumatic experiences, imipramine treatment was considered in addition to behavioral recommendations.

CONCLUSION

The aim of this case report is to emphasize the reality that though psychiatric diseases led by PTSD may be observed after natural disasters like earthquakes, SW assessed as a parasomnia may emerge due to triggering after a natural disaster. This case is presented with the aim of increasing awareness of specialist clinicians about SW that may develop after earthquakes.

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