

## CASE REPORT

### USUAL ERRATIC PHENOMENON AND DRAMATIC OUTCOME A CASE REPORT OF PHENYTOIN TOXICITY

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**ABSTRACT:** Phenytoin is still one of the most commonly used antiepileptic drugs in clinical practice around the globe. It has a range of familiar prejudicious and side effects, which have been reported formerly including ataxia, dizziness, visual disturbance, nystagmus, diplopia and cognitive dysfunctions amongst others. Here we are reporting a rare case of phenytoin toxicity presenting dramatically as a behavioural disorder resulting from underlying primary adverse effects of phenytoin, which were clinically overlooked. Discontinuation of phenytoin resulted in remission of side effects as well as the secondary behavioural manifestations.

**KEYWORDS:** phenytoin toxicity, miscommunication, dramatic presentation, mislead, careful history taking.

**INTRODUCTION:** Phenytoin seems to be the most commonly used and studied antiepileptic agent and its side effects and toxicity symptoms are well documented.<sup>(1)</sup> It is a well-known fact that phenytoin may commonly cause central nervous system side effects like sedation, blurring of vision, nystagmus, ataxia, hyperkinesia, psychosis and phenytoin encephalopathy. Research has shown that neurological and cognitive adverse effects are more common and more deleterious with phenytoin and other older antiepileptic drugs than with the newer antiepileptic.<sup>(1,2,3)</sup>

Moreover these usual erratic neurological and cognitive adverse effects can be more troublesome in young, physically active cases and those patients with active cognitive lifestyles, resulting in a variety of problems ranging from poor performance in studies to impairment in the work place.

Furthermore these side effects if overlooked, which is rather common as has been reported earlier,<sup>(4)</sup> can lead to behavioural changes ranging from irritability and low mood to suicidality especially in patients with active cognitive lifestyles including school-aged children and adolescents. We are reporting a rare case of phenytoin toxicity in a 16 year old male presenting dramatically as poor scholastic performance with behavioural changes.

**CASE REPORT:** A 16 year old male patient, student of the 10<sup>th</sup> class was accompanied by his mother presented with vomiting, fever, giddiness, abnormal behaviour. These spells were associated with irritability, feeling low along with death wishes. On inquiry patient had been diagnosed with GTCS since 2 & 1/2 years and was on phenytoin 300 mg/day. However two recent episodes, phenytoin had been changed to Phenytoin ER. But due to "miscommunication" patient continued on old along with the new drug.

He started falling back in his studies and hence performed very poorly in examinations to the extent that in one paper he wrote nothing because of the blurred vision and difficulty maintaining balance while walking. The treating physician and family members linked these symptoms to

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academic performance anxiety due to the dramatic presentation and episodic nature of the symptoms.

- Patient's Vitals were normal.
- Phenytoin level 38 ug/ml.
- Patient was diagnosed as Phenytoin toxicity on basis of phenytoin levels.
- The patient was advised to discontinue phenytoin & was started on other antiepileptic drugs.

**DISCUSSION:** The initial presentation of this case was indeed dramatic in nature and hence the treating physicians were misled into considering the possibility of stress induced psychiatric disorders or aggravation of the underlying seizure disorder. However careful history taking and supporting scientific evidence ruled out such disorders.

Hence, this case report serves to alert clinicians to remain clinically vigilant for such manifestation in patients with active cognitive lifestyles who are on long term phenytoin therapy. Caution needs to be exercised when making dosage changes as we saw that even a small change can precipitate or mitigate the side effects. There is a need for imagination the erratic association of serum levels and toxic effects especially in case of phenytoin so that the progression to such possibly hazardous behavioural changes and the dramatic consequences thereof can be prevented.

### CONCLUSION:

- A thorough patient's history should be obtained.
- There is a need of awareness between the clinicians to be vigilant for patients who are on phenytoin treatment.
- We should keep in mind to check serum phenytoin levels of patients who are on phenytoin treatment on regular interval time.

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