



## MEDICAL ERRORS: OVERDOSE OF PHENYTOIN CAUSING CEREBELLAR ATAXIA DUE TO NURSING NEGLIGENCE

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**(ABSTRACT)** Number of deaths due to medical errors world wide are comparable to those due to accidental causes or any particular specific health problem. This case report highlights the importance of nursing staff in causation of some of the medical errors leading to patient's morbidity. An 18 year male, a known case of operated ostium secundum ASD and seizure disorder due to neurocysticercosis, admitted with an episode of GTCS was conservatively managed and given antiepileptics but later on developed acute cerebellar ataxia. This was later attributed to the accidental overdose of phenytoin taken by the patient in presence of nursing negligence.

**KEYWORDS :** Medical errors, cerebellar ataxia, phenytoin, overdose.

### Background

Most healthcare providers and patients realize that health care services are potentially hazardous and that errors sometimes occur despite the best efforts of people and institutions<sup>1</sup>. For mitigation, the right thing to do is to disclose and compensate patients who sustain injury as a result of substandard care<sup>2</sup>. Disclosure standards and training are necessary to meet public expectations and promote professional responsibility following errors<sup>3,4</sup>.

### Case details

An 18 year old Indian male was admitted with the history of one episode of generalized tonic clonic seizures 2 hours before presentation. He was running high grade fever associated with chills and rigor for one day before presentation. There was no history of cough, expectoration, bleeding from any site, rash, jaundice, syncope, dyspnea, any focal neurological deficit, loss of consciousness, chest pain, palpitation. General and systemic examination was unremarkable except for presence of fever (103°F) and wide split S<sub>2</sub> with ejection systolic murmur at 2<sup>nd</sup> left intercostal space. Patient used to have seizures since the age of 11 years for which he was put on phenytoin and clobazepam after MRI brain revealed conglomerate inflammatory granulomas in left parietal lobe region with moderate peri lesional edema, likely to be degenerating neurocysticerci. Patient was also being followed up in cardiology OPD for ostium secundum atrial septal defect that was closed with a pericardial patch after the device closure attempted proved to be unsuccessful due to thrombosis. A provisional diagnosis of seizure disorder with operated ASD (ostium secundum type) with acute febrile illness presenting with GTCS ?malarial fever ?infective endocarditis was kept. Patient was started on anti-malarials (artesunate + lumefantrine), phenytoin 100 mg TDS and other supportive treatment. Malarial antigen came out to be negative and 2D-ECHO did not show any evidence of infective endocarditis. On 3<sup>rd</sup> day of admission patient complained of vertigo, inability of walk, stand or even sit straight up. On examination patient was swaying side to side on sitting up in bed and was not able to stand on ground on his own falling backwards. Neurological examination revealed signs of cerebellar drift, broad base gait with truncal ataxia, titubation, rebound knee jerk phenomenon, nystagmus and intention tremor with negative Romberg sign. A possibility of drug induced (? phenytoin) diffuse cerebellar dysfunction was kept and blood phenytoin levels was sent for therapeutic drug monitoring, which came out to be high (24.9 µg/ml :N 10-20). But we still wondered how could an therapeutic dose of 100 mg three times a day appropriate for adults result in overdose adverse effect. On enquiring from the patient itself, it was revealed that he was continuously taking 300 mg phenytoin started many years back on his own without informing nursing staff along with 100 mg TDS started after the current presentation. Thereafter the drug was administered to him in the requisite dosage and patient was counselled against taking medication without prescription. His symptoms improved and he was discharged after 9 days of admission.

### Discussion

This incident underlies the importance of supervising any drug which patient is taking by the nursing staff and patient's attendants as it may

prove to be the cause of undue harm to the patient due to medical errors. Gaps exist between patients expectations for disclosure, apology and physicians ability to deliver disclosures well<sup>5</sup>. This discrepancy reflects clinicians fear of litigation, concern that disclosure might harm patients, and lack of confidence in disclosure skills<sup>6</sup>. Therefore every effort must be undertaken to minimise the preventable medical errors in judgement and treatment coupled with increased emphasis on institutional responsibility for disclosure and strengthening the relationship between disclosure and quality improvement.

### ACKNOWLEDGEMENTS

None

### CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

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