



An Unusual Cause of Recurrent Apnea in an Infant: Eyes Say It All

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To the Editor: Recurrent apnea is a common presentation of central nervous system (CNS) or respiratory pathologies in infants. We came across an infant presenting with recurrent apnea and hypotonia, but with an unexpected and preventable cause, brimonidine eye drop-induced apnea and hypotonia.

A 6-mo-old boy was referred with a history of recurrent episodes of apnea for 15 d. He was first born out of nonconsanguineous marriage without any perinatal adverse event. His developmental milestones were normal for age. Parents noticed episodes of reduced activity and decreased respiratory effort leading to desaturation, requiring bag and mask ventilation for the last 15 d. It was not associated with seizure. There was no evidence of metabolic derangement on evaluation. He was started on antiepileptics in view of possibility of seizure. Electroencephalogram and magnetic resonance imaging of brain did not show any abnormality. On detailed history, parents gave the history of the child being diagnosed with congenital glaucoma of right eye, on the same day the episodes started. He was started on brimonidine eye drops, after which, episodes of apnea were noticed. So, possibility of brimonidine-induced CNS depression was kept and the drug was stopped, following which, there was no recurrence of apnea episodes. Alternate medication for glaucoma was started and he was planned for surgery.

Brimonidine is an alpha 2 agonist which crosses blood brain barrier and causes CNS depression [1]. Literature

review showed that brimonidine causes CNS depression leading to hypotonia and apnea in infants and young children [2, 3]. Other adverse effects include hypotension, miosis, bradycardia, hypothermia and hyporeflexia [4]. Our index case had recurrent apnea with hypotonia secondary to the topical brimonidine. Pediatrician should be aware of this potentially lethal adverse effect of brimonidine in infants.

Declarations

Conflict of Interest None.

References

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