

A rare case of sudden bilateral sensorineural hearing loss caused by cocaine abuse

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Introduction

Cocaine abuse is associated with a constellation of severe systemic adverse effects like stroke, myocardial infarction, arterial dissection, and vascular thrombosis. Effects of cocaine abuse and sudden bilateral hearing loss are exceedingly rare. Cocaine-induced sensorineural hearing loss has been rarely reported.

Case presentation

32-year-old male with no past medical history presented with sudden onset bilateral hearing loss. Communication was possible only by writing. He stated that his hearing loss started on the morning of admission, was sudden in onset, and not associated with ear pain, discharge, tinnitus, or dizziness. He snorted cocaine daily for two days before admission. He denied trauma, use of any medications, exposure to loud noise. He was vitally stable. His head was atraumatic. Otoscopic examination of both ears exhibited a normal auditory canal.

Cocaine abuse leads to sensorineural hearing loss



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The tympanic membrane was grayish in color and translucent; cone of light and bony landmarks were visible. Rinne's test revealed that air conduction was better than bone conduction, indicating sensorineural hearing loss. Weber's test was normal. Neurologic examination was unremarkable. Laboratory examination was unremarkable. Syphilis was non-reactive, screening for autoimmune disease was negative. Urine toxicology was positive for cocaine. Computerized tomography scan of the head was normal. He was treated with a one-time 120 mg IV solumedrol. Within three days following admission, the patient reported normalization of hearing.

Discussion

This case highlights the rare adverse effect of cocaine abuse. Cocaine intoxication should be considered as a differential when a patient presents with sensorineural hearing loss.

