

Frequently Seen But Rarely Diagnosed: Musical Ear Syndrome

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Dear Editor,

Musical ear syndrome (MES) is a condition that causes patients with hearing impairment to have non-psychiatric auditory hallucinations. In advanced age, it could be confused with dementia. In addition, MES is suggested to be a variant of Charles Bonnet syndrome (visual hallucinations in visually impaired patients) by some authors (1). Although its mechanism is unknown, secondary to hearing loss, phantom sounds are thought to be caused by hypersensitivity in the auditory cortex associated with sensory deprivation (2,3). Hallucinations are usually musical in nature and can range from popular music, orchestral symphonies, or radio tunes.

An 87-year-old woman has been admitted to our neurology outpatient clinic, complaining about hearing a concert play for a month that no one else was hearing. She used to think that these sounds were coming from the next door. When the music became persistent, she realised that her relatives were not hearing these sounds, and she really got confused. Her medical history included hypertension and bilateral sensorineural hearing loss caused by presbiacusia. Audiogram showed 75% hearing loss on the right ear and 95% hearing loss on the left ear. Her vital signs were normal. The patient was alert, fully oriented, and had a normal cognitive profile. Her physical and neurological examinations were normal. Her brain magnetic resonance imaging (1.5 T) and electroencephalography showed no relevant pathology. Although quetiapine had been started for hallucinations (at the dose of 50 mg/day), she showed no change in her symptoms. The patient and her family were informed about the nature of hallucinations, and quetiapine was discontinued. We suggested the patient to maximize hearing with a hearing aid and enrich the environment with sound, which will give the brain much-needed input to reduce its own generated sound. The patient is still followed up and is complaint-free.

Although MES is not a "scary" disease, persistent hallucinations may disturb patients and affect their quality of life. Patients should be educated about the syndrome and firmly assured that they are not mentally ill. There is no standard consensus for treatment. Hearing impairment is not found to be effective for all patients (3). Haloperidol, atypical neuroleptics, selective serotonin and norepinephrine reuptake inhibitors, and cholinergic and GABAergic agents are used with some success, along with cognitive behavioral therapy. We believe that nondrug treatment options should be preferred to drugs to avoid adverse effects in the elderly population.

In conclusion, formed complex auditory hallucinations without cognitive and psychiatric impairment should strongly be indicative of MES for clinicians.

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