

Objective Tinnitus From Middle Ear Myoclonus

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Objective tinnitus is a rare otological symptom heard by both the patient and the examiner. In this brief report, an objective tinnitus from middle ear myoclonus is presented by audible clicking on audio recording. For the first time in medical literature, to our knowledge, objective tinnitus from middle ear myoclonus can be clearly heard.

REPORT OF A CASE

A healthy 32-year-old woman presented with a 3-month history of intermittent clicking in both ears with no other otological or neurological symptoms.

Physical examination of both ears revealed normal tympanic membranes. An audible click could be heard on both sides, not in time with the patient's pulse (video with audio; <http://www.archoto.com>). Neither visible nor palpable palatal contractions were seen or felt.

Findings from pure-tone audiometry and magnetic resonance imaging of the brainstem were normal. The patient was therefore diagnosed as having bilateral middle ear myoclonus.

COMMENT

Middle ear myoclonus is rare,¹ especially bilateral cases.^{2,3} The tensor tympani muscle is described as producing a "clicking sound" compared with the buzzing sound of the stapedius muscle, if affected. These myoclonal movements are thought to be a segmental myoclonus involving brainstem innervated muscles. Implicated causes include demyelination,⁴ vascular disease, and anxiety.

Treatment can involve anxiolytics, botulinum toxin,⁵ or even surgical section of the muscular tendons.⁶ For our patient described herein, no clicking remained at the 1-month postoperative follow-up examination.

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