

## CLINICAL VIDEO

### Objective pulsatile tinnitus

Dario A. Yacovino<sup>1,2</sup> & Pablo Casas<sup>2</sup>

<sup>1</sup>Neurology Department, "Cesar Milstein" Hospital, Buenos Aires, Argentina

<sup>2</sup>Memory and balance Clinic, Buenos Aires, Argentina

#### Correspondence

Dario A. Yacovino, Memory and Balance Clinic, 177 Riglos Street 2° Suite, CP: 1424 Ciudad Autónoma de Buenos Aires, Argentina. Tel/Fax: +54 11 4901 1894; E-mail: yac@intramed.net

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A woman presented with left-sided pulsatile tinnitus. The auscultation of the lateral neck identified a subtle systolic murmur; however, on the left mastoid region the intense murmur could be clearly perceived (video-audio). Brain MRI and digital subtraction angiography confirmed a left mastoid dural arteriovenous fistula (Fig. 1).

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#### Key Clinical Message

Tinnitus is the usually unwanted perception of sound, in most cases there is no genuine physical source of sound. Less than 10% of tinnitus patients suffer from pulsatile tinnitus. Objective Pulsatile tinnitus can also be the first indication of dural arteriovenous fistula, so examination for such vascular origin must be performed.

#### Keywords

Arteriovenous malformation, audition, clinical neurology examination, stroke prevention, tinnitus.

less than 10% suffer from pulsatile tinnitus [1]. If tinnitus can also be detected by a clinician is described as objective. In most objective pulsatile tinnitus patients, a treatable underlying etiology can be identified [2].

#### Conflict of Interest

The authors have nothing to disclose.



**Figure 1.** Brain MRI (right) and digital subtraction angiography (left) show a left mastoid dural arteriovenous fistula fed by the ipsilateral occipital artery branch of the external carotid artery as the main sources (arrow). Venous drainage was occurring anterogradely through the left transverse/sigmoid sinus into the left jugular vein (arrow).

## References

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## Supporting Information

Additional Supporting Information may be found in the online version of this article:

**Video S1.** Video and audio recorded by a commercial HD webcam. When the camera is set on the left mastoid area (black parts of video) a systolic murmur can be recognized.