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## Tinnitus as presenting symptom of dural arteriovenous fistulas – A diagnosis not to be missed

Panagiotis Zogopoulos<sup>1</sup>, Hajime Nakamura<sup>1</sup>, Tomohiko Ozaki<sup>1</sup>, Katsunori Asai<sup>1</sup>, Hiroyuki Ima<sup>1</sup>, Tomoki Kidani<sup>1</sup>, Yoshinori Kadono<sup>1</sup>, Tomoaki Murakami<sup>1</sup>, Tetsuo Morihana<sup>1</sup>, Yumi Oota<sup>1</sup>, Takao Imai<sup>1</sup>, Toshiyuki Fujinaka<sup>2</sup> and Toshiki Yoshimine<sup>1</sup>

<sup>1</sup>Osaka University Graduate School of Medicine, Japan

<sup>2</sup>Osaka National Hospital, Japan

Tinnitus can be the presenting symptom of a cerebral dural arteriovenous fistula (DAVF), a vascular shunt often characterised by an aggressive course. Over the last 7 years (2008-2014) 32 patients with cerebral DAVFs presented at the Neurosurgery department of Osaka University hospital. In 15 of these patients (47%) tinnitus was the presenting symptom that led to clinical and radiographic exams establishing diagnosis. Particularly, eight men and seven women with mean age of 57,6 years (range: 38-80 years) complained about tinnitus. Mean duration of symptomatology until diagnosis and treatment was 10.3 months. All 15 patients underwent endovascular treatment with embolisation of the shunt with detachable coils and/or glue. The distribution of DAVFs according to shunt location was: transverse-sigmoid sinus (n=8), cavernous sinus (n=3), tentorial sinus (n=2), sphenoid wing (n=1) and anterior condylar confluence (n=1). Patients who had tinnitus for more than 6 months before treatment (n=5) had a significantly worse clinical outcome regarding persistent tinnitus (P=0.01) compared to patients with tinnitus of less than 6 months' onset (n=10), over a mean follow-up period of 3 years. Tinnitus may occur even when the DAVF is not in direct contact with the auditory nerve. Increased awareness of clinicians, and especially ENTs, regarding this underlying pathology, is essential in preventing significant morbidity and mortality and magnetic resonance angiography is highly recommended for these patients, early in the course of their disease so as to establish diagnosis and proceed to proper treatment.

### Biography

Panagiotis Zogopoulos is a resident of Neurosurgery at the General Hospital of Nikaia-Piraeus "Agios Panteleimon", Athens, Greece. He has conducted a 6-month research on dural arteriovenous fistulas at the Neurosurgery Department of Osaka University Hospital in Japan. Several of his papers have been published in reputed peer-review journals and he has presented various researches in international conferences.

[p.zogopoulos@yahoo.com](mailto:p.zogopoulos@yahoo.com)