

## **Clinical-Medical Image**

# Mega-Dolicho Vertebrobasilar System: An Unusual Cause of Cranial Pair Damage

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**Figure 1:** (**A**) Coronal T2 FSE. (**B**) 3D TOF: Tortuous, elongated and ectatic appearance of the basilar trunk (4.7 mm). (**C**) 3D fiesta centered on the internal auditory canal: Important mass effect of the basilar trunk (star) on the left trigeminal nerve V (arrow) which is small and pushed out. (**D**) 3D fiesta centered on the IAC: Intimate contact of the basilar trunk (star) with the left acoustico-facial bundle at its emergence (arrow).

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#### Abstract

Intracranial arterial dolichoectasia is a dilatative arteriopathy involving the vertebro-basilar arteries in 80% of cases, referred to as megadolichobasilar anomaly. It is usually asymptomatic. It may present with compressive or ischemic symptoms.

Cerebral magnetic resonance imaging is the gold standard for diagnosis.

We report the case of a 44-year-old woman with no notable pathological history, suffering from vertigo and tinnitus on the left side for 2 months, rebellious to symptomatic treatments, the aftermath was marked by the installation of a left facial paralysis. A cerebral MRI was requested,

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showing a mega-dolicho vertebrobasilar system, responsible for a compression of the cranial pairs. Intracranial arterial dolichoectasia is a dilatative arteriopathy involving the vertebro-basilar arteries in 80% of cases, referred to as megadolicho-basilar anomaly [1]. It is a condition in which the vertebral/basilar artery (VBA) is elongated, distended and tortuous [2]. Its prevalence is 4.4% and it is more frequently seen in women. Its clinical presentation is broad and the prognosis is generally poor with a high mortality rate [3]. It is usually asymptomatic. It may present with compressive or ischemic symptoms [2]. The main location of AVB is the basilar artery alone (40%), followed by bilateral vertebral arteries, the basilar artery (22%) and both vertebral arteries (16%) [1]. Cerebral magnetic resonance imaging is the gold standard for diagnosis [3]. The diagnostic criteria for AVB are a basilar or vertebral artery diameter >4.5 mm or a deviation of any portion of these arteries greater than 10 mm from the shortest expected path, or a basilar artery length >29.5 mm or an intracranial vertebral artery length >23.5 mm [1].

Keywords: Facial paralysis; Vertigo; Cerebral magnetic resonance imaging; Vertebro-basilar dolichoectasia

#### **Conflict of Interest**

The authors are contributed equally and declare no competing interest.

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