

## A rare occurrence of kinking and coiling of the bilateral vertebral arteries: a case report

*İki taraflı vertebral arterin kıvrımlanma ve dolanma patolojisi: Olgu sunumu*

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Coiling or kinking of the vertebral artery is a rare morphological entity that is infrequently reported because it remains asymptomatic and has no clinical relevance.<sup>[1]</sup>

### CASE REPORT

A 24-year-old female was admitted to our internal medicine department with complaints of fatigue and hoarseness that had been prominent for the last two months. She was then recommended for admission to our clinic with a possible diagnosis of Takayasu arteritis.

Color Doppler ultrasound (US) revealed a monophasic flow pattern within both subclavian arteries throughout the entire course, and selective arcus aortography was carried out. Bilateral selective carotid and subclavian arteriography was evaluated as normal. A bilateral vertebral angiogram showed two subsequent kinking lesions of the right vertebral artery containing a coiling lesion in the middle (Figure 1), and a left vertebral angiogram detected both coiling and kinking lesions as well (Figure 2). Our case was discharged with a recommendation that she be followed up by the



**Figure 1.** Image of the right vertebral artery with selective injection showing the kinking and coiling anomalies.



**Figure 2.** Image of the left vertebral artery with selective injection showing the coiling and kinking anomalies.



Available online at  
www.tgkdc.dergisi.org  
doi: 10.5606/tgkdc.dergisi.2013.3606  
QR (Quick Response) Code

Received: June 22, 2009 Accepted: August 26, 2011

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outpatient clinics due to a lack of neurological symptoms originating from these arterial segmental abnormalities.

## DISCUSSION

In 10-43% of angiograms, tortuous morphology of carotid or vertebral arterial system is seen and generally consist of an excess arterial length. The tortuosity may also take the form of simple or multiple kinking, coiling, or looping,<sup>[2]</sup> but usually these anomalies have no connection with neurological symptoms. An actual abnormality of the arterial wall structure only exists in exceptional cases, and surgery may be considered in symptomatic cases. Horsch et al.<sup>[3]</sup> recommended that an exact assessment of the stenosis should be the determining factor in the diagnosis and that this is of utmost importance when surgery is indicated.

## Declaration of conflicting interests

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

## Funding

The authors received no financial support for the research and/or authorship of this article.

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