

A Rare Aortic Arch Anomaly in Light of a New Nomenclature

Yeni Bir İsimlendirme Işığında Nadir Bir Aortik Ark Anomalisi

Given the clinical importance of the aortic arch, defining its branching variations with a universal standard coding system is essential. To this end, Natsis et al. proposed a new systematic classification of all published left-sided aortic arch variants based on the number and prevalence of radiating branches. They categorized the types as 1b, 2b, 3b, 4b, and 5b, where the number refers to the number of branches (b), and the subtypes are defined by their prevalence. Here, we present a new case of an aortic arch branching pattern, which, according to the classification proposed by Natsis et al., has only one previously reported case in the literature.

A 14-year-old girl was referred for evaluation of a heart murmur. Transthoracic echocardiography revealed an anomalous course of the aortic arch. Cardiac computed tomography was subsequently performed to further evaluate the branching anomaly. Detailed examination revealed a branching anomaly corresponding to type 2b5 in the Natsis et al. classification. In this case, the first branch of the aortic arch was a bicarotid trunk, followed by the left subclavian artery. An aberrant right subclavian artery arose from the beginning of the descending aorta (Figure 1, Video 1).

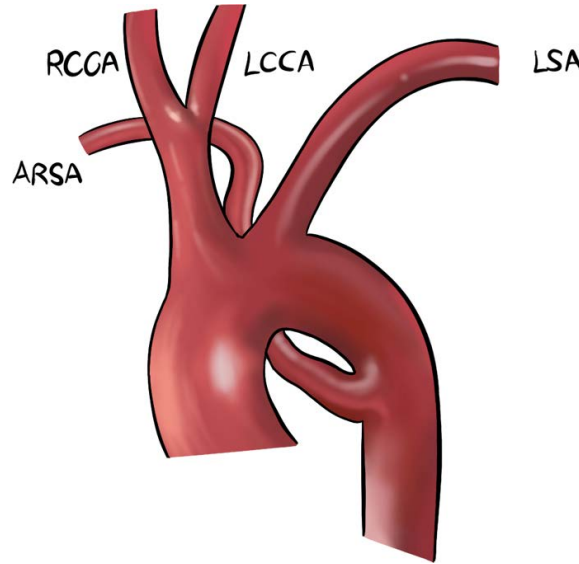


Figure 1. Schematic view of the aortic arch anomaly.

The patient had no clinical symptoms. We present this case as it represents only the second known instance reported in the literature, highlighting the importance of a standardized classification system for aortic arch anomalies.

Ethics Committee Approval: This is a single case report, and therefore ethics committee approval was not required in accordance with institutional policies.

Informed Consent: Informed consent was obtained.

Conflict of Interest: The authors have no conflicts of interest to declare.

Funding: The authors declared that this study received no financial support.

Use of AI for Writing Assistance: AI-assisted technologies were not used in this article.

Author Contributions: Concept – S.K.; Design – S.K.; Supervision – Ö.L.B.; Resource – S.B.C., E.K.; Materials – Ö.L.B., S.B.C.; Data Collection and/or Processing – S.K.; Analysis and/or Interpretation – S.K.; Literature Review – S.K.; Writing – S.K.; Critical Review – S.K.

Peer-review: Internally peer-reviewed.

Video 1. 3D computed tomography image of the aortic arch anomaly.

CASE IMAGE OLGU GÖRÜNTÜSÜ

Serdar Kula¹

Öznur Leman Boyunağa²

Sertaç Bekir Cömert²

Ege Kula³

¹Department of Pediatric Cardiology, Gazi University Faculty of Medicine, Ankara, Türkiye

²Department of Radiology, Gazi University Faculty of Medicine, Ankara, Türkiye

³Başkent University Faculty of Dentistry, Ankara, Türkiye

Corresponding author:

Serdar Kula

✉ kula@gazi.edu.tr

Received: April 21, 2025

Accepted: May 27, 2025

Cite this article as: Kula S, Boyunağa ÖL, Cömert SN, Kula E. A Rare Aortic Arch Anomaly in Light of a New Nomenclature. *Türk Kardiyol Dern Ars.* 2025;53(5):369.

DOI: 10.5543/tkda.2025.22544



Available online at archivestsc.com.
Content of this journal is licensed under a
Creative Commons Attribution –
NonCommercial-NoDerivatives 4.0
International License.