

Coronary Arteriovenous Fistula with Congenital Peripheral Arteriovenous Malformation in a 20-year-old: A Rare Case

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Abstract

BACKGROUND: Arteriovenous malformations (AVM) are pathologic connections between arteries and veins. They may occur as an isolated lesion or in combination with other lesions, which may be part of a syndrome. Data on congenital peripheral AVM occurring concomitantly with a coronary arteriovenous fistula (CAVF) is limited.

CASE: A 20-year-old female presented with a 3 year-history of easy fatigability and recurrent exertional chest pain not relieved with analgesics and nitrates. Her previous medical history included recurrent AVM of the right leg despite percutaneous gel foam embolization six years ago. Her physical examination was unremarkable. Apart from a chest X-ray that showed cardiomegaly, preliminary work-up was essentially normal (Troponin, 12-L ECG, 24-hour Holter monitor, 2DEchocardiogram, Stress Echocardiography, Myocardial Perfusion Imaging). CT coronary angiography (CTA) showed a CAVF of the left circumflex artery and great cardiac vein. The patient is now referred to TCVS for surgical intervention.



DISCUSSION: Despite extensive work-up for the patient that showed unremarkable results, we pursued a CTA due to a clinical suspicion of a CAVF in a background of congenital AVM. This resulted to a definitive diagnosis, which may otherwise be dismissed as a non-cardiac cause of chest pain.

CONCLUSION: We highlight the importance of increased clinical suspicion for CAVF for young patients with persistent chest pain, especially in the setting of previous congenital lesions. Further investigation is needed to determine whether an anomalous arteriovenous connection at one site predisposes an individual to having an arteriovenous connection at another. This is an underreported phenomenon that could be a part of a rare syndromic condition.

Biography:

The author has obtained her medical degree from the Manila Central University Filemon D. Tanchoco College of Medicine at age 25. She had her residency training in Internal Medicine at the St. Luke's Medical Center Quezon City, and is currently a 1st year Cardiology fellow at the Henry B. Calleja, Heart and Vascular Institute, St. Luke's Medical Center Quezon City.

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