

Correspondence

Paolo Angelini's Legacy in the Study of and Treatment for Anomalous Coronary Arteries



To the Editor

The news of Paolo Angelini's passing on July 29, 2023, at the age of 81¹ was received with profound sadness. It also was seemingly met with a synchronous homage in Gaudino et al's² state-of-the-art review on anomalous aortic origin of coronary arteries (AAOCAs), which extensively quotes Dr Angelini's life works. Dr Angelini was a contemporary of Andreas Grüntzig and had worked with him in Zurich to refine the procedure of coronary angioplasty.¹ The interarterial course is now considered to be benign, thanks to Dr Angelini demonstrating that the mechanism of ischemia is via ostial stenosis and aortic intramural compression. He presented a stenting series of 42 patients with right coronary arteries arising from the left coronary cusp (R-AAOCA), of whom 30 had more than 5 years of follow-up with no deaths and a lower-than-expected in-stent restenosis rate of 13%.¹ His publication of these results was followed 3 years later by an equivalent surgical series that included 30 patients with R-AAOCA, of whom 17% developed early aortic regurgitation, 2% had supravalvular aortic stenosis, 4% had recurrent ostial coronary artery stenoses, and 6% needed repeat surgery.³ Meanwhile, stenting techniques continue to improve, and in-stent restenosis is simple to treat percutaneously with the aid of high-resolution intracoronary imaging, greater general availability of atherectomy and debulking devices, and the recently proven efficacy of the drug-coated balloon for in-stent restenosis. These techniques have removed the need for restenting. Clearly, Dr Angelini was ahead of the curve; he correctly observed that for R-AAOCA, if there is no concomitant cardiac abnormality or widespread atherosclerosis, stenting can safely be performed with a durable outcome. In contrast, undertaking a major open-heart operation for a single coronary artery involving aortic transection appears to be excessive and is associated with significant surgical morbidity³ as opposed to the more traditional "3-or-more" surgical coronary arterial bypass grafting, which improves long-term survival in addition to alleviating symptoms. Finally, thanks to Dr Angelini, ischemic testing with a formal coronary physiology study that involves dobutamine fractional flow reserve, including vasospasm testing with acetylcholine (if indicated), is routinely performed to guide the management of AAOCA.

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Abbreviations and Acronyms

AAOCA	anomalous aortic origin of coronary arteries
R-AAOCA	right coronary artery arising from the left