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Letter to the Editor

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Letter to the editor regarding: "A rare case of CHD: anomalous origin of coronary artery from innominate artery with coronary fistula and truncus arteriosus"

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Sir,

We all remember well the horrors of making the schoolroom "howler." We tend to think that such egregious mistakes become a thing of the past as we move forward in our careers. There are certain topics, nonetheless, that continue to hold the capacity for misinterpretation. In the setting of the congenitally malformed heart, one of the most obvious is the arrangement in which the coronary arteries are fed in retrograde fashion via the arterial duct by a grossly hypoplastic ascending aorta, which seems to arise from the brachiocephalic trunk. One variant of this arrangement has been considered to represent a solitary pulmonary trunk,[1] although the presence of the hypoplastic ascending aorta calls this description into question. When discussing this particular arrangement, along with R.H.C. Bentall, incidentally the son of the man who originated the Bentall procedure, my old friend Sally Allwork summed up the potential problem when stating "The deformity, which is a variant of the hypoplastic left heart syndrome, is identified by the absence of coronary ostia in the sinuses of the valve of the truncus and by an atretic aorta which appears to be an anomalous coronary artery." As I have emphasised, the overall arrangement is far from rare in the setting of hypoplastic left heart syndrome when the ascending aorta is grossly hypoplastic. In the specific variant described by Allwork and Bentall, a "punctum" was found in the root of the pulmonary trunk. This permitted the authors to make the inference that the aortic root might itself have originated, during development, from the pulmonary trunk, rather than the left ventricle. Had the hypoplastic aorta been traced into continuity with the solitary trunk, then the trunk itself would, indeed, have justifiably been considered a common entity. The coronary arteries, nonetheless, would still have arisen from the ascending aorta. And, as emphasised by Allwork and Bentall,[1] the combination would still properly be diagnosed as a variant of hypoplastic left heart syndrome. It remains the fact, nonetheless, that the combination creates the potential to be interpreted, incorrectly, as anomalous origin of the coronary arteries from the innominate artery.[2] I was concerned, when reading this title in contents of the Journal, that the authors might have fallen for the schoolroom howler. Reading the account[2] did no more than confirm my worst fears. On conducting a simple Google search, I was then surprised to discover that the left coronary artery can, indeed, on occasion, arise from the brachiocephalic artery.[3] But when it is the left coronary artery arising from the brachiocephalic trunk, the aortic root is of normal size. In the cited example,[3] the lesion was encountered in an adult presenting with syncope. True origin of a coronary artery from the brachiocephalic artery, therefore, as suggested by the authors of our "howler,"[2] is truly rare. The alternative arrangement, found in the setting of hypoplastic left heart syndrome, is far from rare. One must wonder, nonetheless, as to why the inappropriate interpretation was not recognised during the process of peer review, thus saving our colleagues from embarrassment?

Yours faithfully
Robert H. Anderson

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Conflicts of interest. None.

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