Correspondence

Letter by Angelini Regarding Article, “Long-Term Outcome and Impact of Surgery on Adults With Coronary Arteries Originating From the Opposite Coronary Cusp”

To the Editor:

I read with interest the recent article by Krasuski and colleagues, which acknowledges that our understanding of coronary artery anomalies remains inadequate, and that advances in this field are slow to come.

The authors report data from their 35-year experience at the Cleveland Clinic. Their review of coronary angiograms from a database that included 210,700 patients yielded 310 cases of anomalous origin of the coronary artery from the opposite sinus of Valsalva (ACAOS), including 54 cases with an interarterial course (IAC), of which 28 were treated surgically. I congratulate the authors for undertaking such large-scale research into such rare coronary conditions.

There are some additional details that might have been useful to include in the study report. One is an explanation of the apparent prevalence of ACAOS in the 210,700 patients; 0.026% is a fraction of the prevalences found in prospective catheterization studies that have used strict definitions of ACAOS and prospective reexamination by experts. My group, for example, reported a prevalence of >1% (ie, 38 times larger). This difference may have occurred because the 210,700 cine-angiograms were interpreted over the years by different operators who used different definitions and had different levels of experience.

Also, ACAOS with IAC (which my group calls simply ACAOS, implying not only a course between the aorta and pulmonary artery, but an obligatory intramural aortic anomalous course) is associated with significant mortality in young people. I would have liked to see the intramural course included in the authors’ definition of ACAOS/IAC, because I believe that this course and the resulting luminal narrowing are the mechanism of ischemia and sudden cardiac death in ACAOS/IAC.

I also would have liked to see distinctions made between patients with right versus left coronary artery ACAOS and between those with and without coronary artery disease. In adults, dependent myocardial territory and coronary artery disease severity have been shown to be much more important prognostic indicators than ACAOS by itself.

The study report could also have benefitted from more details about the causes of mortality. Currently, the consensus seems to be that mortality is a critical issue in young patients, but not in adult patients. Thus, adult ACAOS/IAC patients are treated because of symptoms and signs of ischemia, not primarily because of high risk for sudden cardiac death. However, the authors report high mortality in their adult surgical (17.9% in 5.1 years) and medical patients (46.2% in 11.4 years), even though these patients were relatively young (mean age, 52.2 years) and had isolated ACAOS/IAC. Therefore, it would be useful to know the modes and causes of death in these patients, and the expected mortality in a control population, as well.

The authors have added important information to the literature on this rare coronary condition. I commend them for their substantial efforts to address an important topic that needs further prospective and focused research.

Disclosures

None.

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References

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