

Bicuspid aortic valve syndrome: diversity and controversy

María Martín¹ · Vicente Barriales¹ · Guillermo Solache-Berrocal² ·
José Rozado¹ · César Morís¹ · Isabel Rodríguez²

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Dear Editor,

We have read with great interest the manuscript recently published in your journal by Allen et al. [1] about the influence of beta-blocker therapy in aortic blood flow in patients with bicuspid aortic valve (BAV).

The initiative of this study is really welcome and, considering that BAV is the most frequent congenital disease, it would be interesting to design a prospective and multi-centre study about this matter, although still some questions remain in the air.

As we all know, BAV is a heterogeneous disease and it can present as an isolated valvulopathy or in association with other congenital diseases and aortic diseases such as dilatation of the ascending aorta and aortic coarctation. A recent publication by Disha et al. opens an interesting debate about the follow-up of patients with BAV and normal aortic size at the moment of valvular surgery. As authors said, there is a lack of data regarding the risk of aortic events in this subgroup of patients and here is a new issue of concern: bicuspid aortopathy represents a spectrum of different proximal aortic phenotypes which are the manifestation of a genetic complexity still unsolved [2]. As it is known, alterations in the aortic media and differences in aortic elastic properties and wall stress are also present in the aortopathy associated to BAV, but further studies are

still needed in order to identify not only genes responsible for BAV but also the different phenotypes associated with this entity or syndrome.

In this scenario of heterogeneity, diversity and controversy we think that of course, preoperative evaluation of aortic root is mandatory and, until more clear evidence exists, a periodically follow-up after aortic valve surgery should be carried out. About this last issue and, in order to answer questions, prospective and multicentre studies would also be welcome.

Compliance with ethical standards

Conflict of interest Authors do not have any conflict of interests.

Human and Animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

References

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2. Disha K, Rouman M, Secknus MA, Kuntze T, Girdauskas E (2016) Are normal-sized ascending aortas at risk of late aortic events after aortic valve replacement for bicuspid aortic valve disease? *Interact Cardiovasc Thorac Surg* (Epub ahead of print)

✉ María Martín
mmartinf7@hotmail.com

¹ Cardiology Department, Hospital Universitario Central de Asturias, Avda Pedro Masaveu 27, 4L., 33007 Oviedo, Asturias, Spain

² Bone and Mineral Research Unit, IRSIN, Hospital Universitario Central de Asturias, REDinREN from ISCIII, Oviedo, Spain