

A Unique Hybrid Tricuspid Aortic Valve



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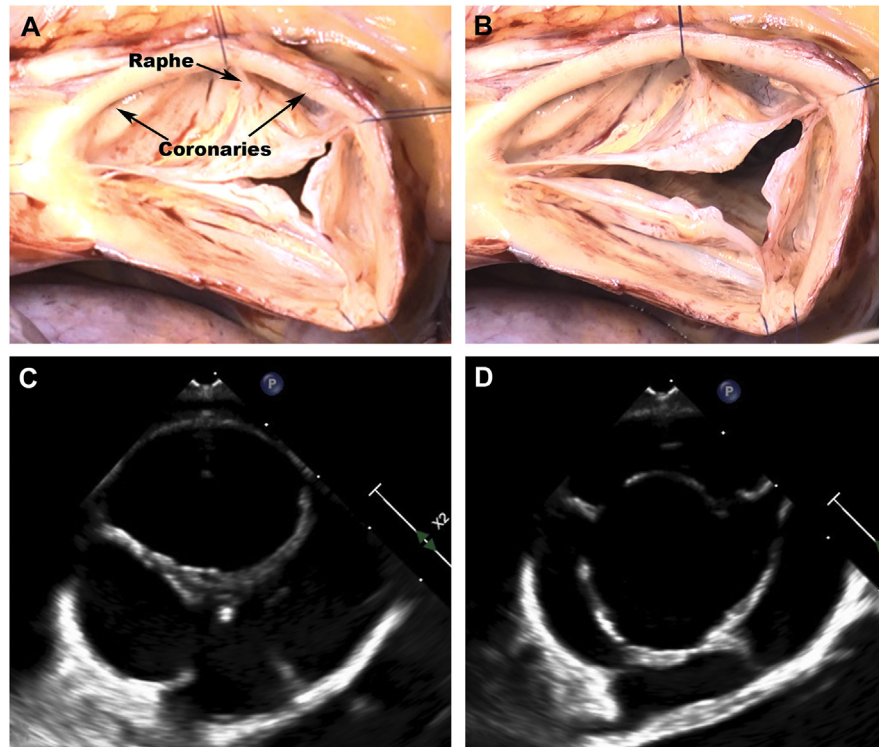


FIGURE 1

Aortic valve (AV) phenotypes range from unicuspid valves to quadricuspid valves. The most common and normal AVs are tricuspid. We have recently published a new classification for bicuspid AVs (BAVs), which highlights the vast morphologic variety of these valves.¹ BAVs can range from perfectly symmetric valves, to very tricuspid AV-like phenotypes, such as the BAV Fruste.

With all these different phenotypes, it appears reasonable to consider that all available AVs fall within this spectrum. However, herein we are presenting an AV

that falls out of this range (Figure 1). This valve has 3 cusps and 3 commissures, but it also has a raphe, typical for BAVs. But then it also has a bifid noncoronary cusp, typically seen in quadricuspid AVs. Hence, we are dealing with a tricuspid AV with bicuspid- and quadricuspid-like features—in other words, a hybrid. Preoperatively, the valve appeared quadricuspid on echocardiography.

In our Center experience, this is the first such valve observed, and it highlights the notion that there is further variability beyond the known spectrum of AV phenotypes.

REFERENCE

1. Jahanyar J, El Khoury G, De Kerchove L. Commissural geometry, and cusp fusion insights to guide bicuspid aortic valve repair. *JTCVS Tech*. 2021;7:83-92.