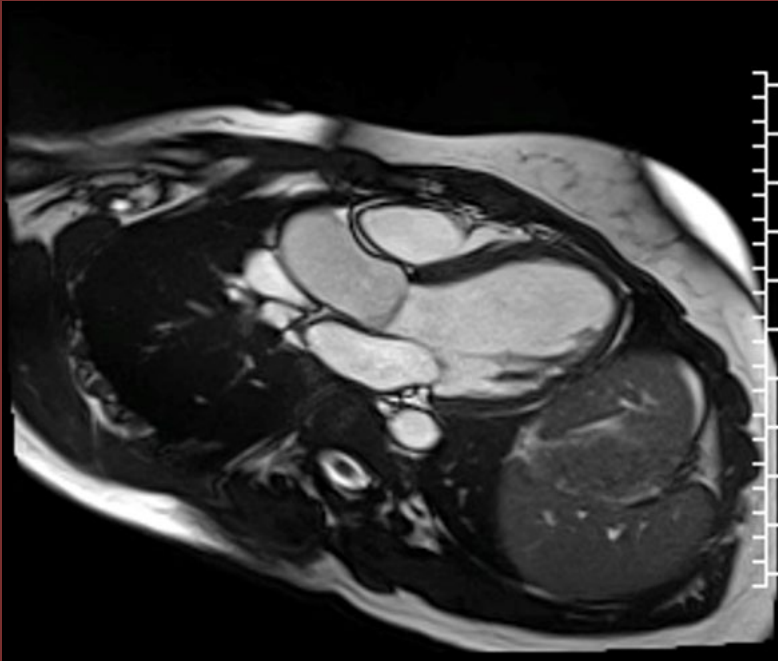


NORTH AMERICAN SOCIETY FOR
CARDIOVASCULAR IMAGING



3D Chamber view.



Small field of view, centered
over the aortic valve.

24 year-old female undergoing
surveillance of aortic dilation.

Diagnosis: Bicuspid Aortic Valve

Prevalence: 1-2%, males > females. *Most common congenital cardiovascular malformation.*

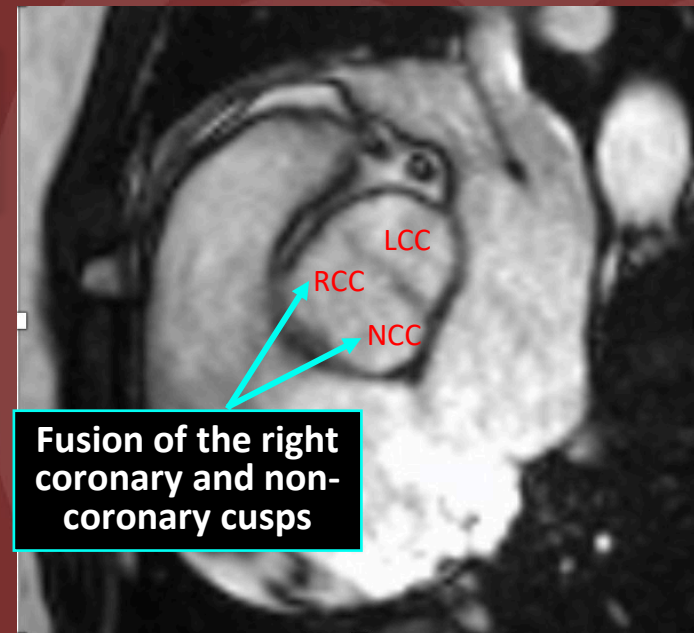
Fusion Type: The **left coronary cusp – right coronary cusp** (**LCC-RCC fusion type is most common (70%)**), followed by the **RCC-NCC fusion type (10-20%)**.

True Bicuspid Type: Just 2 cusps; uncommon (5%).

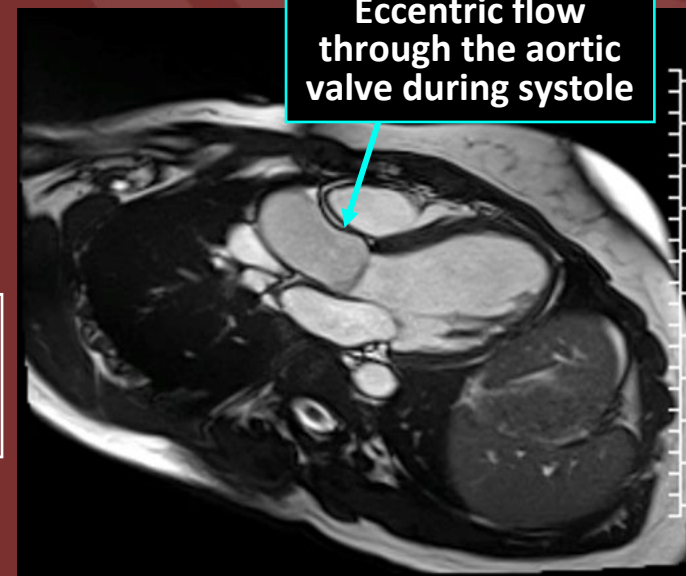
BAV is detected in 30% of patients with **Turner Syndrome**.

Aortic stenosis or aortic insufficiency leads to aortic dilation of the ascending aorta rather than the root. *BAV carries 8x higher incidence of aortic dissection.*

Surgery may be indicated based on size and risk features (hypertension, coarctation, family history of dissection, or growth rate >3mm/year).



Fusion of the right coronary and non-coronary cusps



Eccentric flow through the aortic valve during systole

Natalie LeCrone, MD and Shaimaa Fadl, MD

Virginia Commonwealth University Health System

1. Ko SM et al. AJR Am J Roentgenol. 2012 Jan;198(1):89-97.
2. Erbel R et al. 2014 ESC Guidelines on the diagnosis and treatment of aortic diseases]. Kardiol Pol. 2014;72(12):1169-252.
3. Michelena H et al. Eur J Cardiothorac Surg. 2021 Sep 11;60(3):448-476.
4. Hope MD et al. Radiology. 2010 Apr;255(1):53-61. doi: 10.1148/radiol.09091437.