

Isolated Bicuspid Pulmonic Valve: “Forgotten Valve” and a Rare Anomaly

Ghulam Akbar MD

Lehigh Valley Health Network, ghulam.akbar@lvhn.org

Fnu Vikram MD

Lehigh Valley Health Network, Fnu.Vikram@lvhn.org

Lohit Garg MD

Lehigh Valley Health Network, lohit.garg@lvhn.org

Larry E. Jacobs MD

Lehigh Valley Health Network, larry.jacobs@lvhn.org

Matthew W. Martinez MD

Lehigh Valley Health Network, matthew_w.martinez@lvhn.org

Follow this and additional works at: <https://scholarlyworks.lvhn.org/medicine>



Part of the [Cardiology Commons](#)

Published In/Presented At

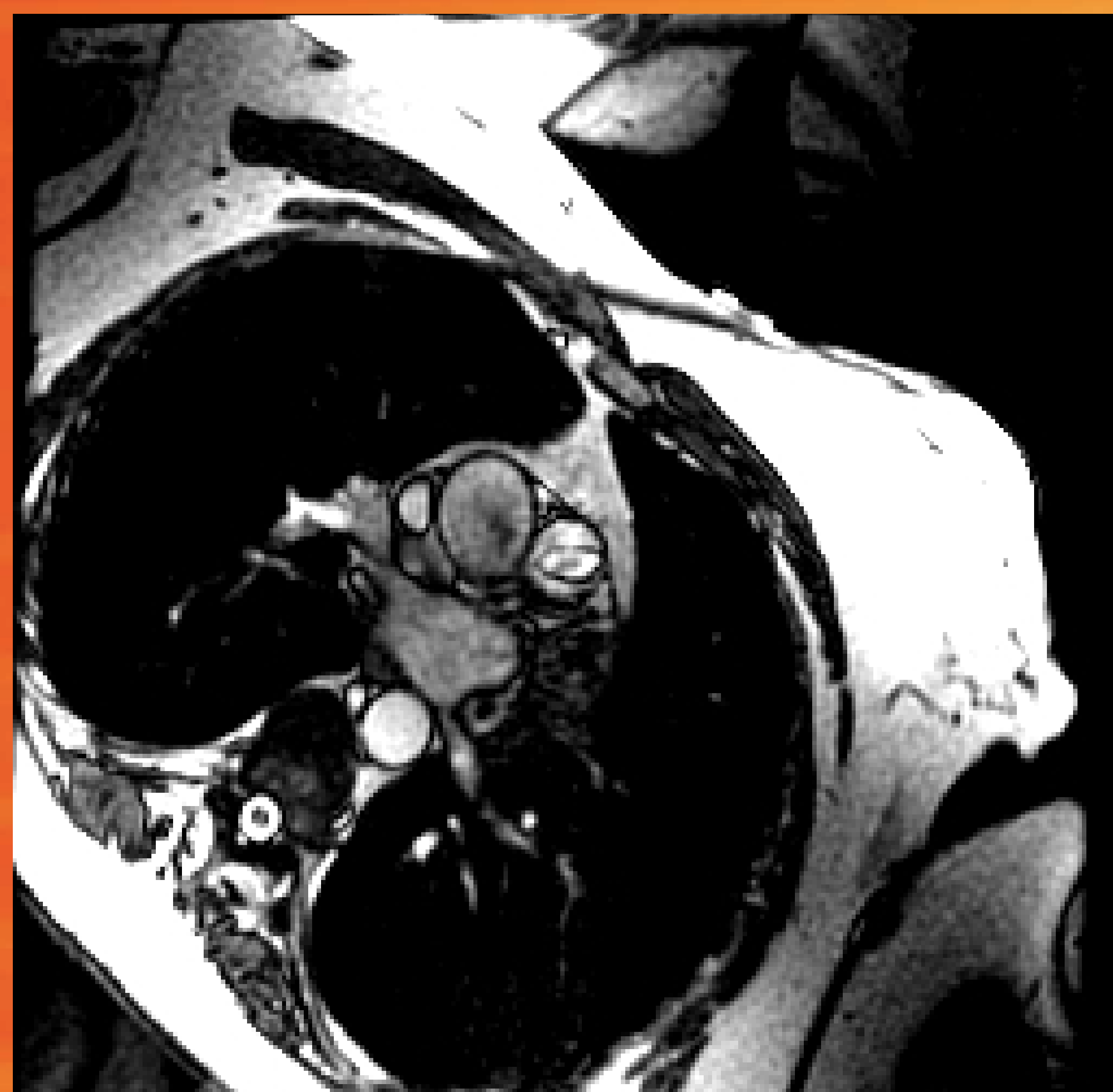
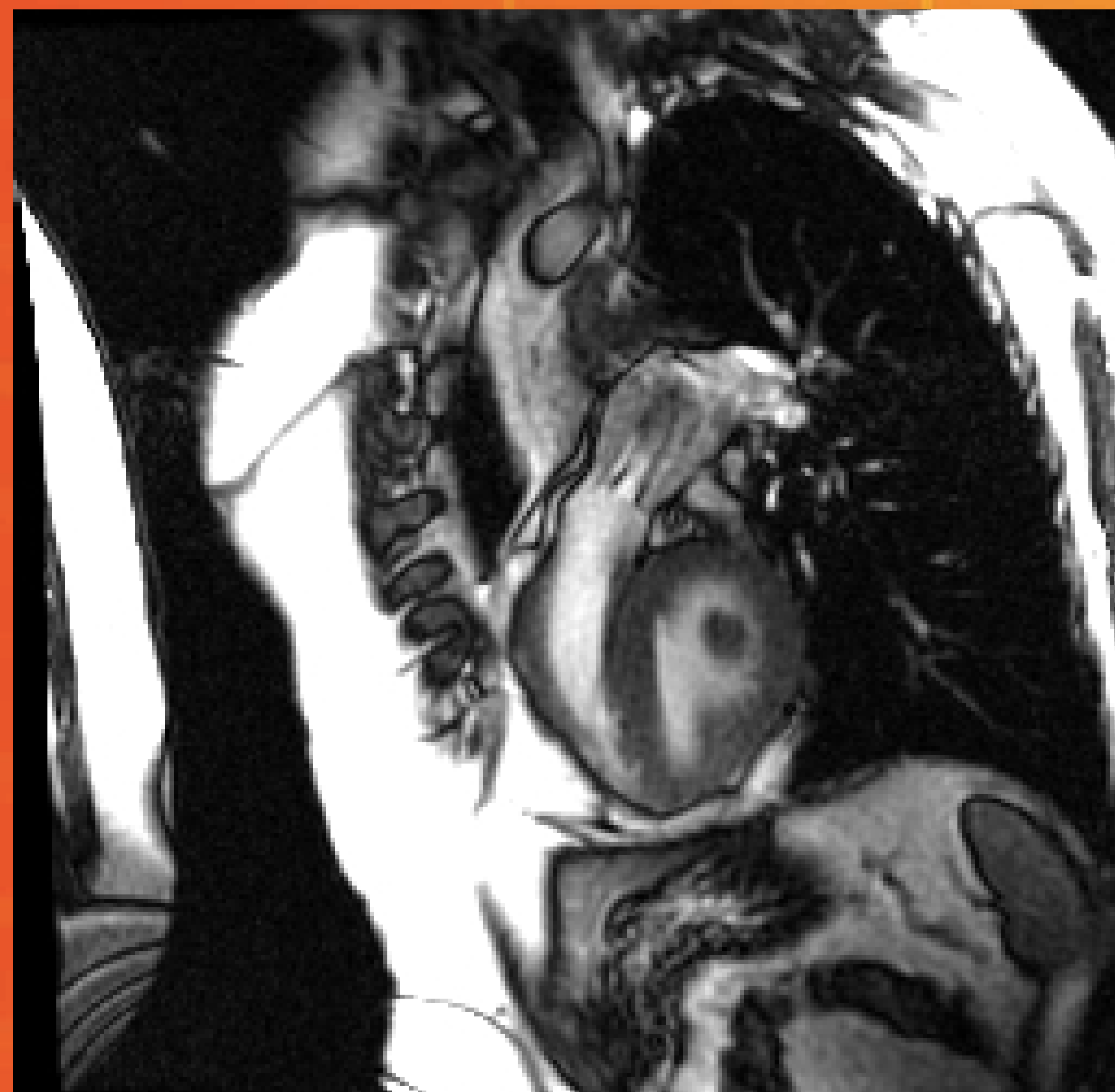
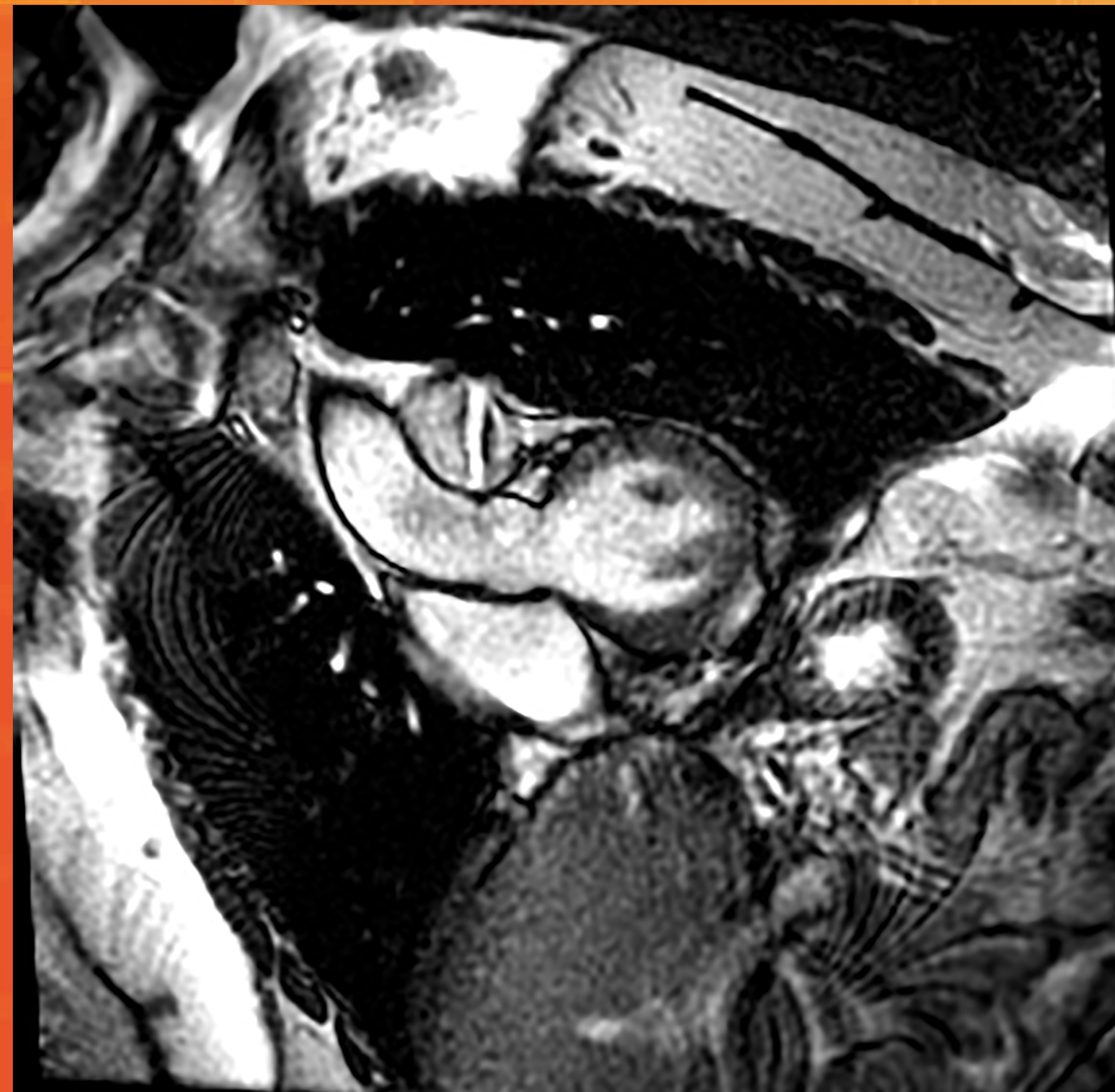
Akbar, G. Vikram, F. Garg, L. Jacobs, L. E. Martinez, M. W. (2019, March 15). *Isolated Bicuspid Pulmonic Valve: “Forgotten Valve” and a Rare Anomaly*. Poster Presented at: The American College of Cardiology Scientific Seccion, New Orleans, LA.

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.

Isolated Bicuspid Pulmonic Valve: “Forgotten Valve” and a Rare Anomaly

Ghulam Akbar, MD; Fnu Vikram, MD; Lohit Garg, MD; Larry Jacobs, MD; Matthew Martinez, MD

Department of Cardiology, Lehigh Valley Health Network, Allentown, PA



Cardiac MRI images showing bicuspid pulmonic in the short and long axis views

INTRODUCTION

- Pulmonary valve is called “the forgotten valve” due to very uncommon clinical involvement.
- Bicuspid pulmonic valve is usually associated with other congenital heart defects.
- Isolated finding of bicuspid pulmonic valve is extremely rare.

CASE PRESENTATION

- 46 year old healthy female was found to have systolic murmur in the second intercostal space.
- TTE showed severe pulmonic stenosis with systolic peak velocity of 50 mmHg and no pulmonic regurgitation.
- Right ventricle size and systolic function was normal. Cardiac MRI discovered bicuspid pulmonic valve with poststenotic mild dilatation of the pulmonary artery. No other congenital abnormality detected.

DISCUSSION

- True prevalence of congenital bicuspid pulmonic valve is unknown due to poor visibility of the pulmonic valve on standard 2D echocardiography.
- Increasing use of 3D echocardiogram and cardiac MRI can reveal the morphological anatomy of the pulmonic valve better and uncover silent case.

- Since abnormality of the endocardial cushion is seen with abnormal semilunar valve, bicuspid pulmonary valve is associated with other congenital anomalies such as tetralogy of Fallot, ventricular septal defect, transposition of the great arteries and bicuspid aortic valve.
- Current guidelines recommend no intervention unless peak gradient is above 60 mmHg in asymptomatic patient or 50 mmHg in symptomatic cases.
- We decided to follow our clinically as she was asymptomatic.
- An exercise stress testing could be considered to discover symptoms or assess peak gradient in equivocal cases.
- Increased risk of infective endocarditis reported. However, routine antibiotic prophylaxis is not recommended.

CONCLUSIONS

- Isolated bicuspid pulmonic valve is exceptionally rare. Unlike bicuspid aortic valve with aortopathy, bicuspid pulmonic valve has a benign clinical course.
- Most patients remain asymptomatic as in our case.
- Since literature is limited to case reports, little is known about its clinical course and management.
- Melody percutaneous pulmonic valve can be tried experimentally in severe stenosis.

NO DISCLOSURES