Images in Medicine

Quadricuspid Aortic Valve

Goel V1



Figure 1 : SAX View of the Aortic Valve showing four cusps in closure with central coaptation failure

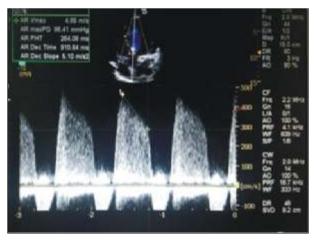


Figure 3: Aortic Valve Pressure Half Time showing Moderate Aortic Regurgitation.

Presenting a case of 53 years old female who came with history of Class II-III exertional dyspnoea of one month duration. ECG showed non specific ST-T

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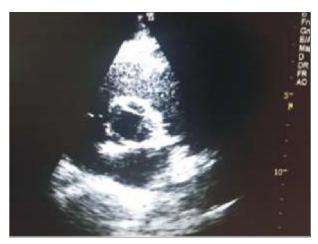


Figure 2 : SAX View of the Aortic Valve when open showing the four cusps

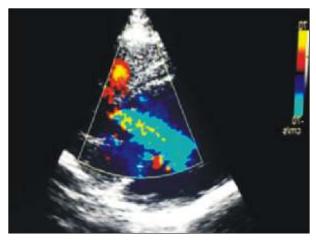


Figure 4: PLAX view showing moderate aortic regurgitation

changes. Echo pictures showed quadricuspid aortic valve with moderate aortic regurgitation with AR PHT of 264 msec.

Quadricuspid aortic valve is a rare congenital heart defect characterised by presence of four cusps instead of usual three found normally in aortic valve¹. Prevalence of Quadricuspid Aortic Valve has been found to be around 0.013% to 0.043% of cardiac cases.² and 1 in 6000 patients that undertake aortic valve surgery³.

The most common complication of Quadricuspid Aortic Valve is aortic regurgitation caused due to inadequate closure of four cusps during systole. ^{1, 2, 3}. The typical method of treatment is through surgery such as Aortic Valve Reconstruction Surgery and Aortic Valve replacement ⁴.

References:

 Zhu J., Zhang J., Wu S., Zhang Y., Ding F., & Mei J. Congenital Quadricuspud Aortic Valve associated with Aortic Incompetence and Mitral Regurgitation. Journal of Cardiotjoracic Surgery, (2013). 8(1), 87.

- Jagannath A.D., Johri A.M., Liberthson R., Larobina M., Passeri J., Tighe D., & Agnihotri A.K. Quadricuspid Aortic Valve: a report of 12 cases and a review of literature. Echocardiography, (2011). 28(9), 1035-1040.
- 3. Godefroid O., Colles P., Vercauteren S., Louagie Y., & Marchandise B, Quadricuspid Aortic Valve: a Rare Etiology of Aortic Regurgitation. European Journal of Echocardiography, (2006). 7(2), 168-170.
- 4. Song M.G., Yang H.S., Lee D. H., Shin J.K., Chee H. K. & Kim J.S). Mid term results in patients having tricuspidaization of Quadricuspid Aortic Valve. Journal of Cardiothoracic Surgery, (2014) 9(1), 29.