

# *Valvular heart diseases*



*Marek Jakub Wawrzacz MD*

# *Most common VHD*

*Aortic  
stenosis*

*Mitral  
regurgitation*

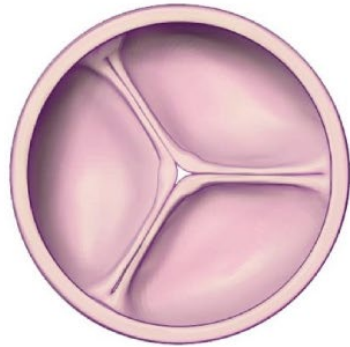
*Tricuspid  
regurgitation*

*Aortic  
regurgitation*

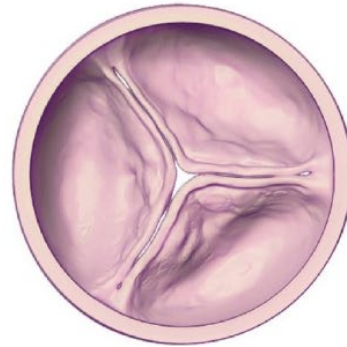
# Aortic stenosis

## Disease Progression in the Valve Leaflets in Aortic Stenosis

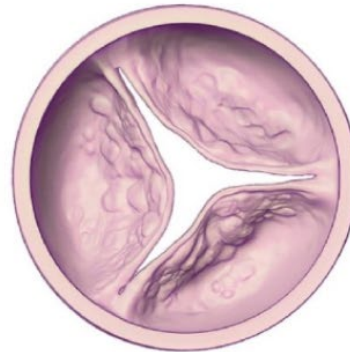
---



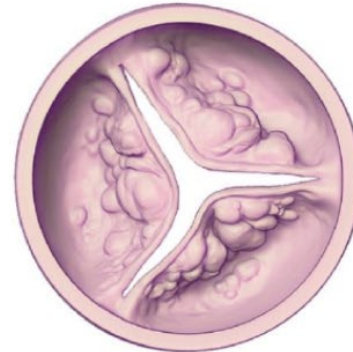
Healthy



Mild

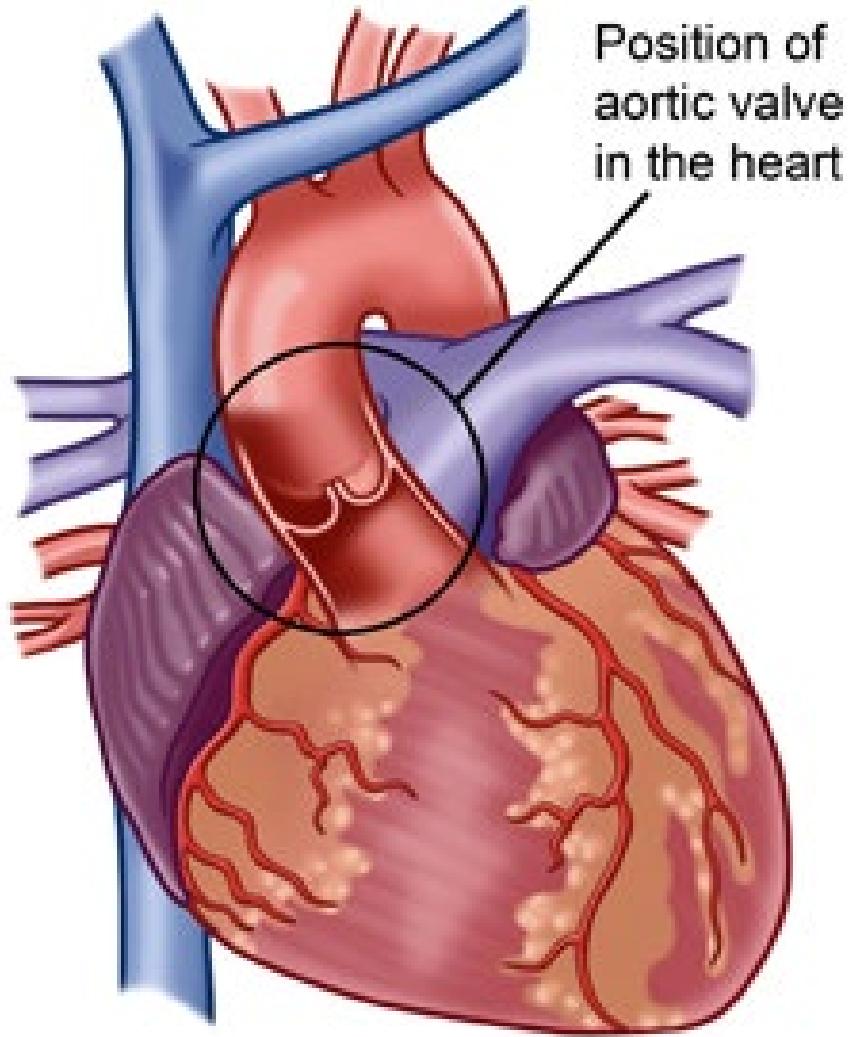


Moderate

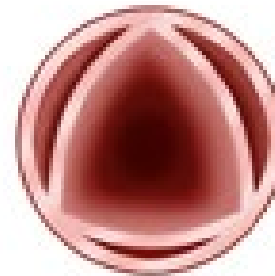


Severe

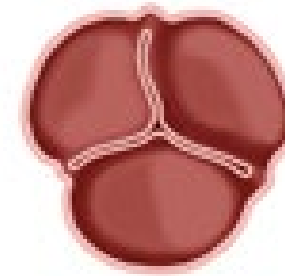
# Aortic stenosis



Tri-Leaflet (Normal)  
Aortic Valve

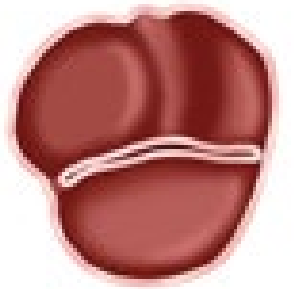
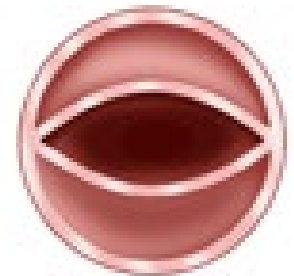


Open

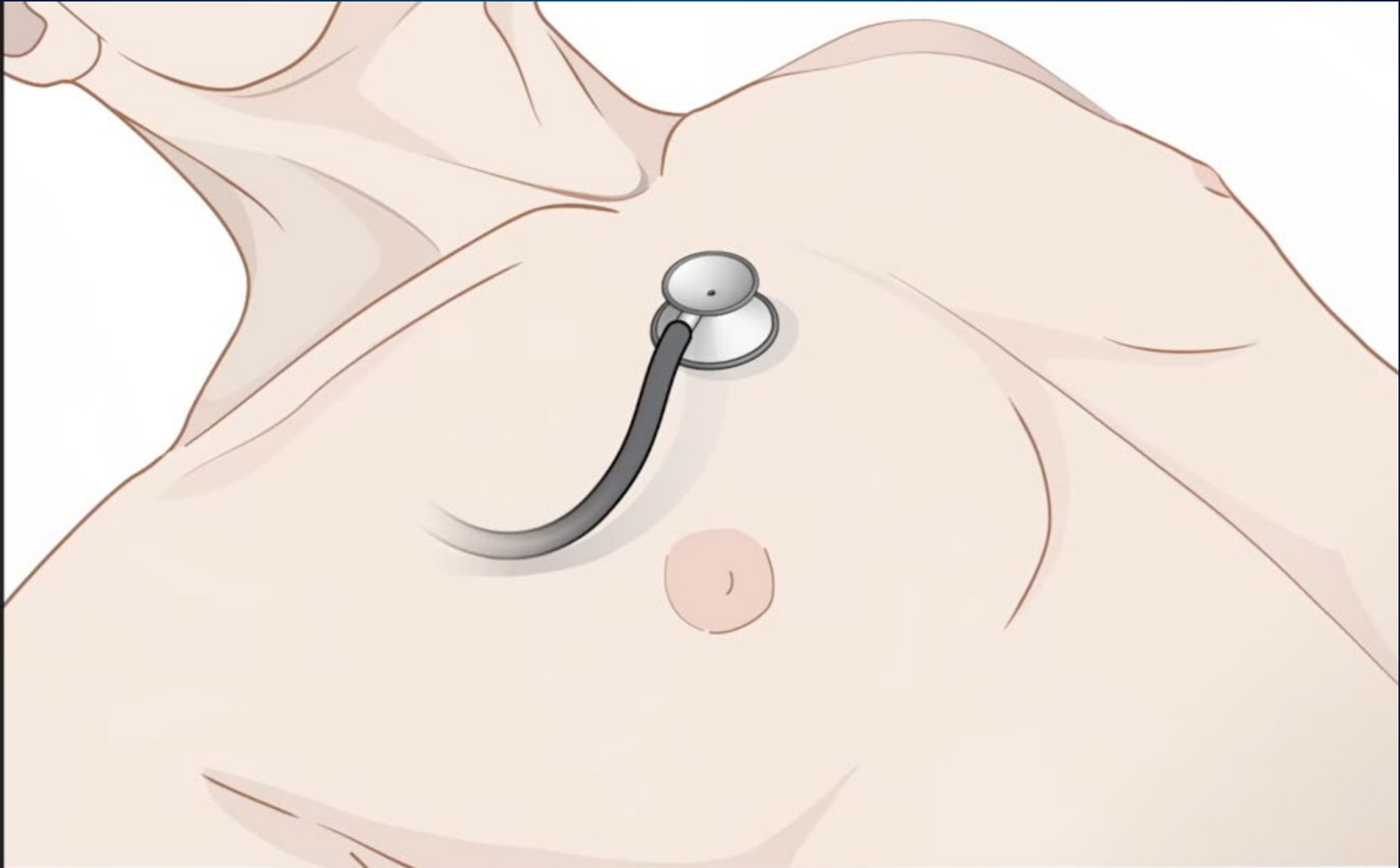


Closed

Bicuspid  
Aortic Valve



# *Aortic stenosis*

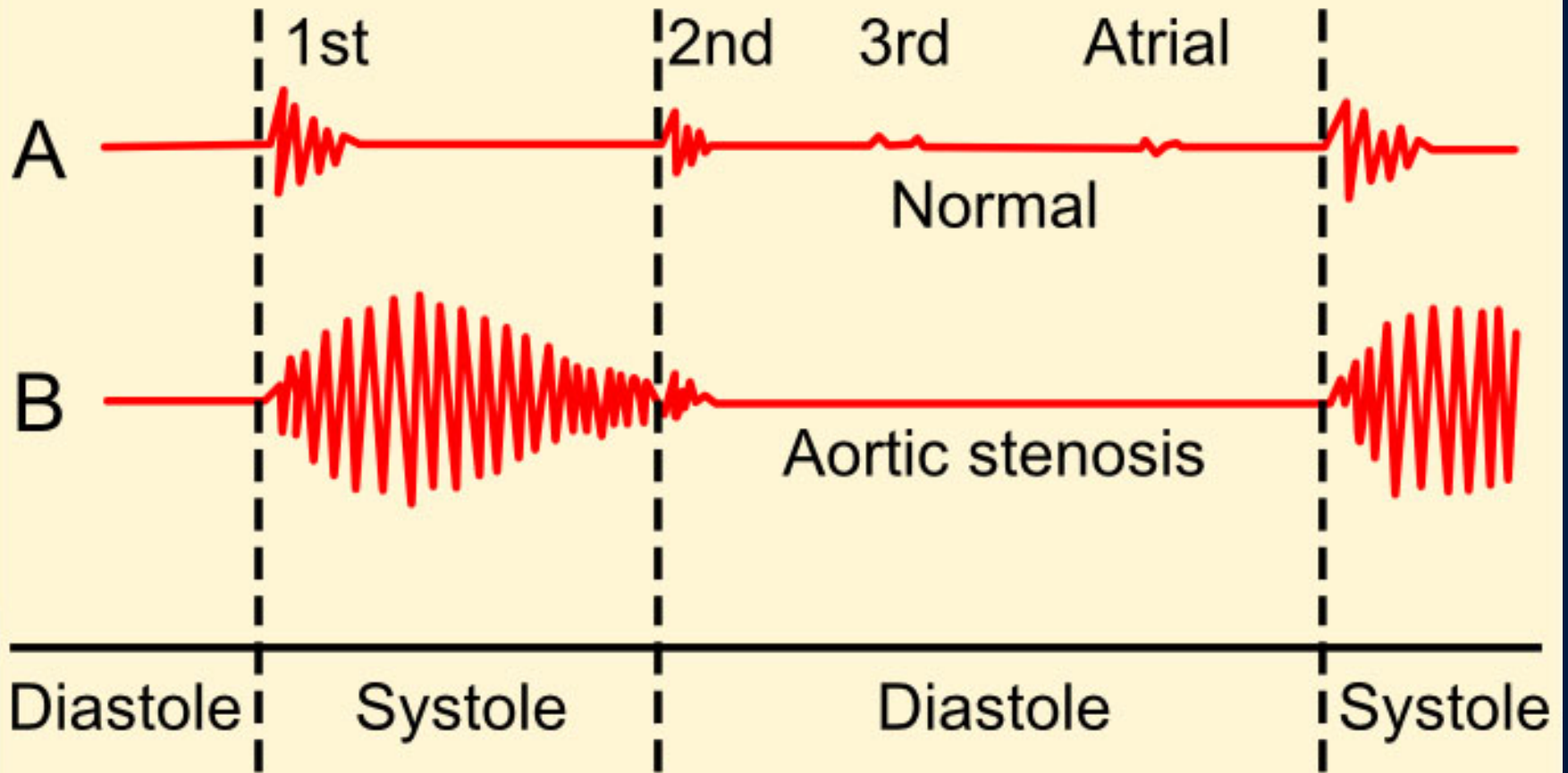


# *Aortic stenosis*





# Aortic stenosis

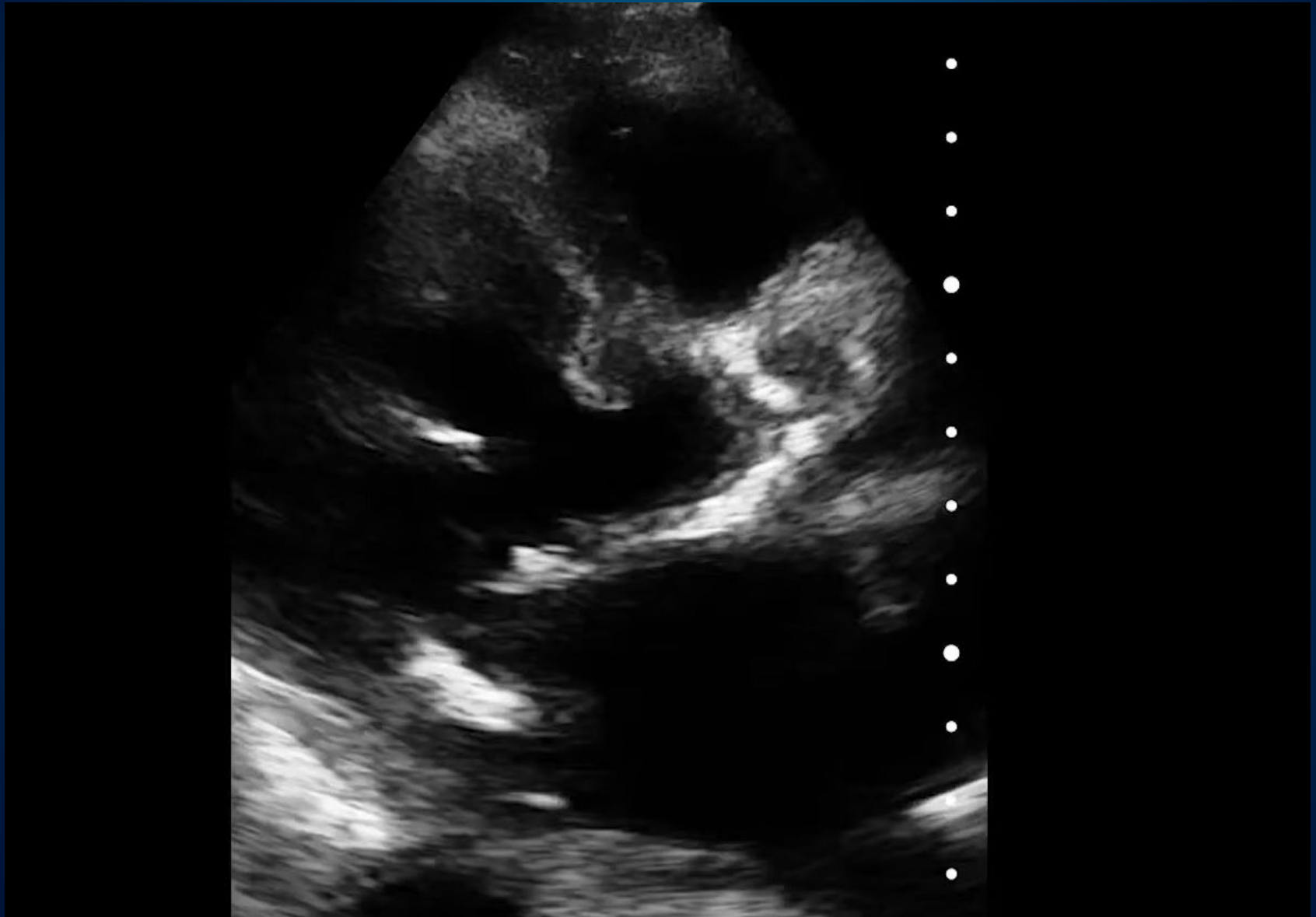


# *Aortic stenosis*

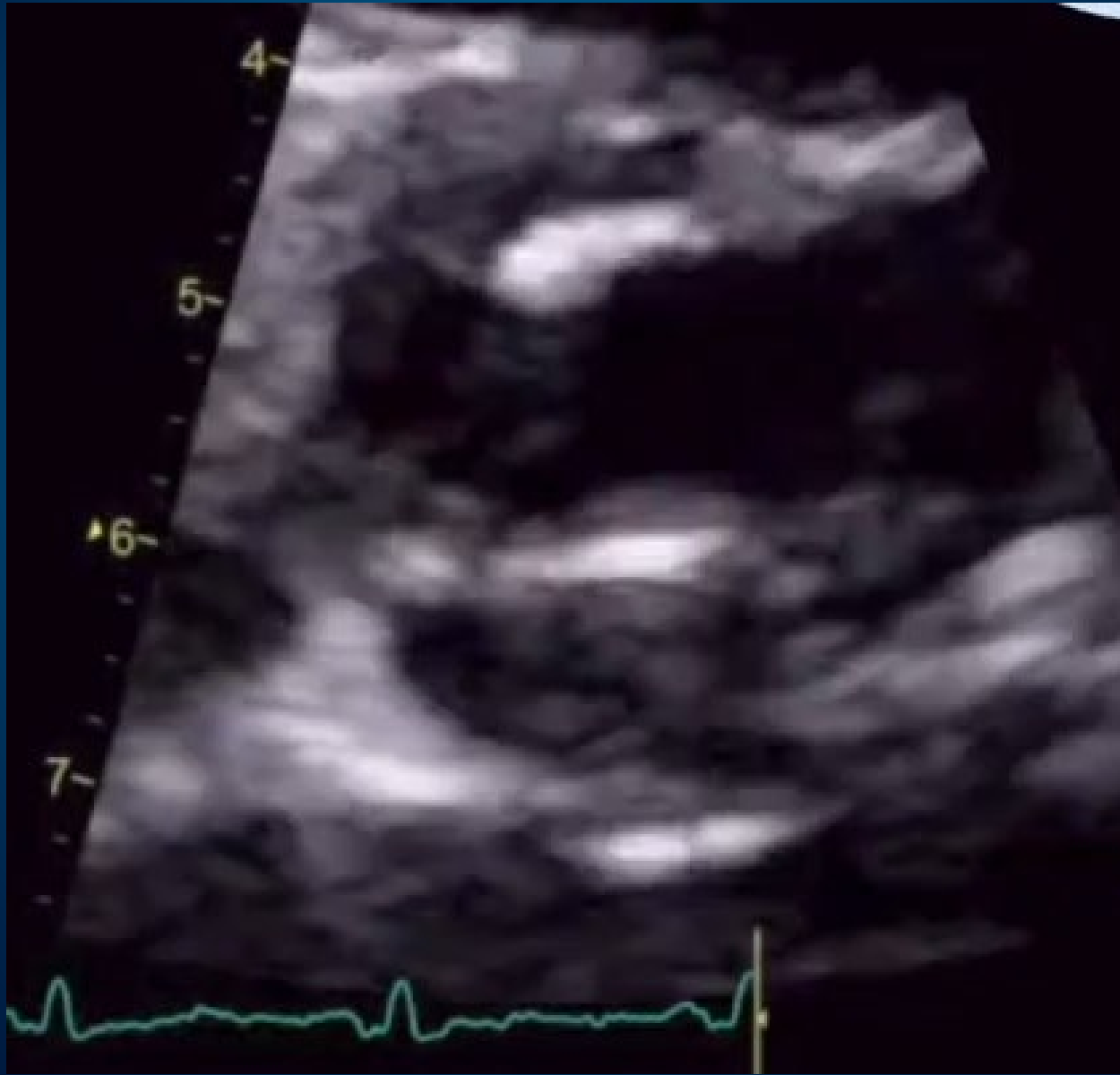




# *Aortic stenosis*



# Aortic stenosis



# Aortic stenosis



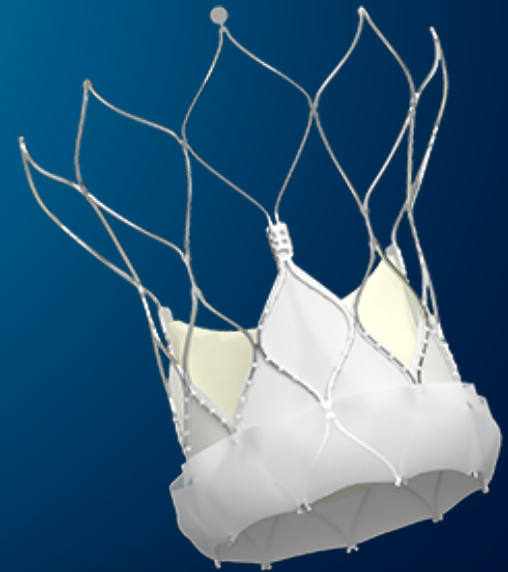
# Aortic stenosis

Valve morphology by echocardiography suspicious of AS

Assess  
velocity/gradient

Low-gradient AS  
 $V_{\max} < 4 \text{ m/s}$ ,  
 $\Delta P_m < 40 \text{ mmHg}$

High-gradient AS  
 $V_{\max} \geq 4 \text{ m/s}$ ,  
 $\Delta P_m \geq 40 \text{ mmHg}$

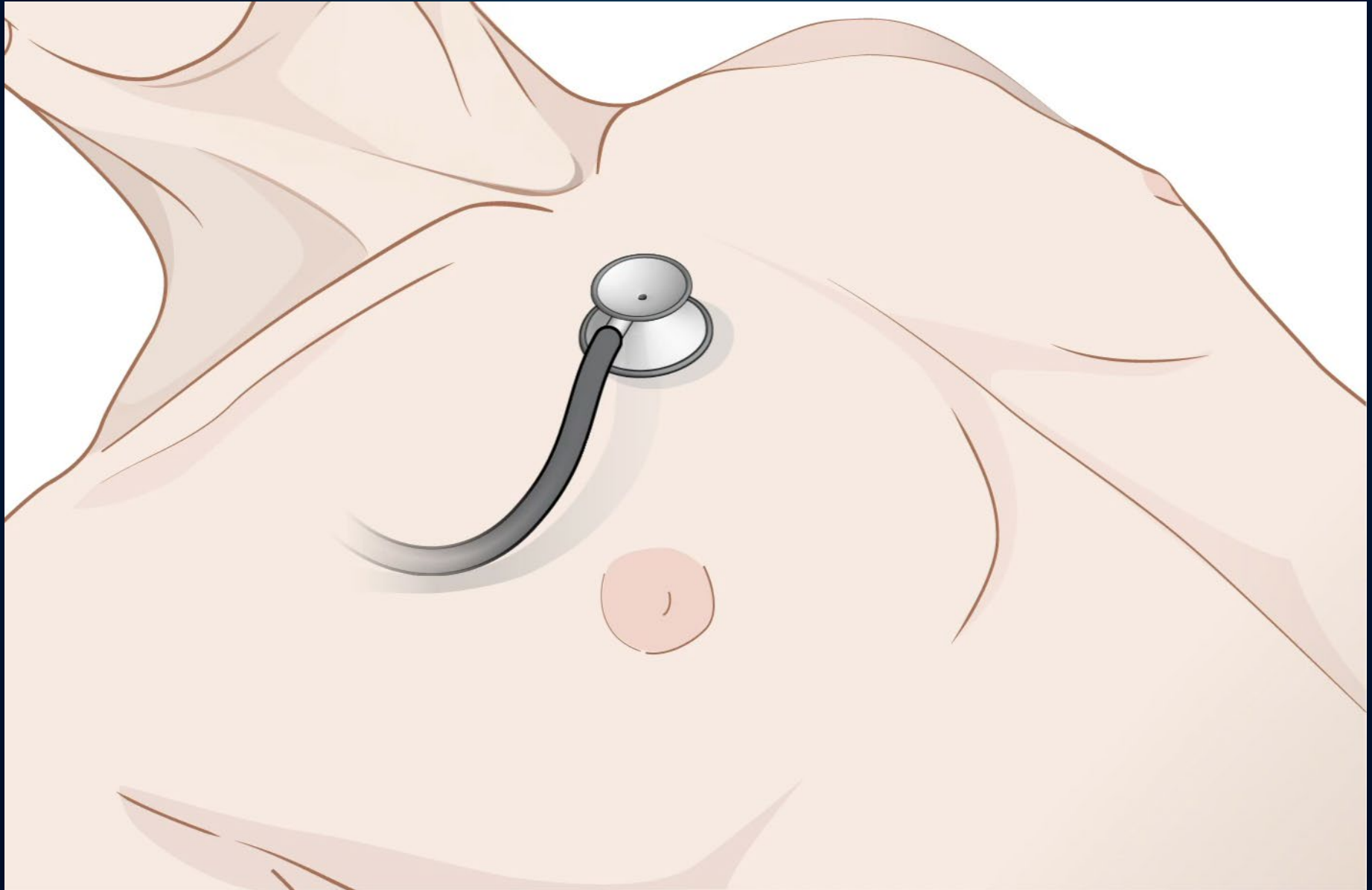


# *Mitral regurgitation*



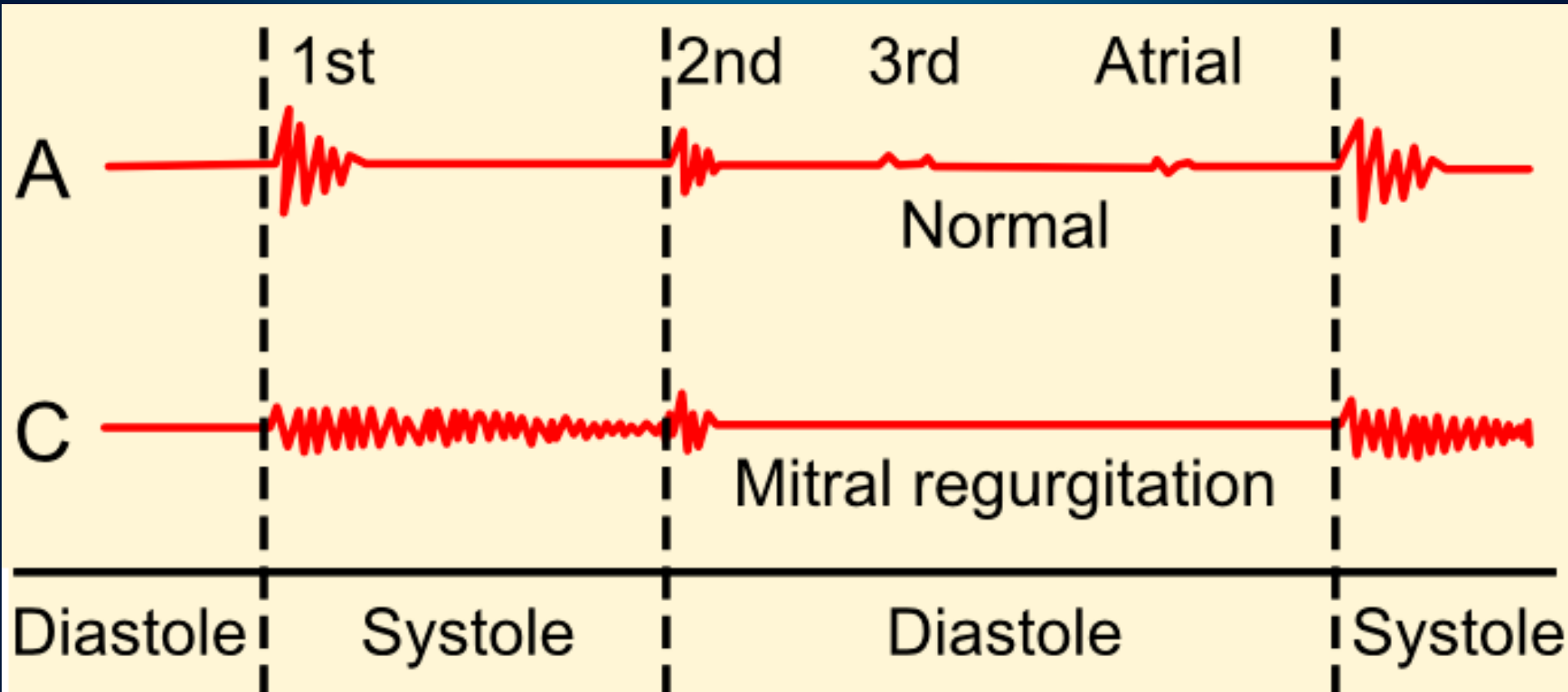


# *Mitral regurgitation*

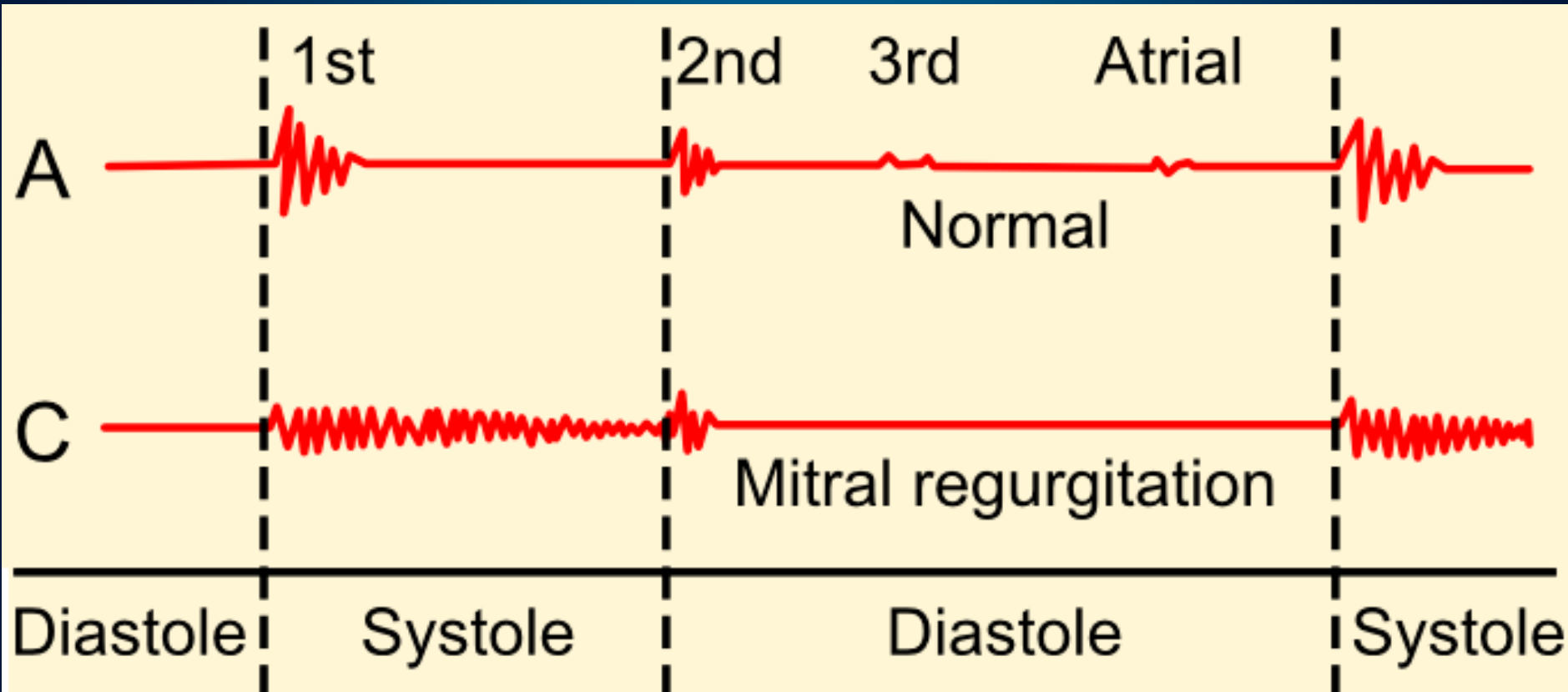




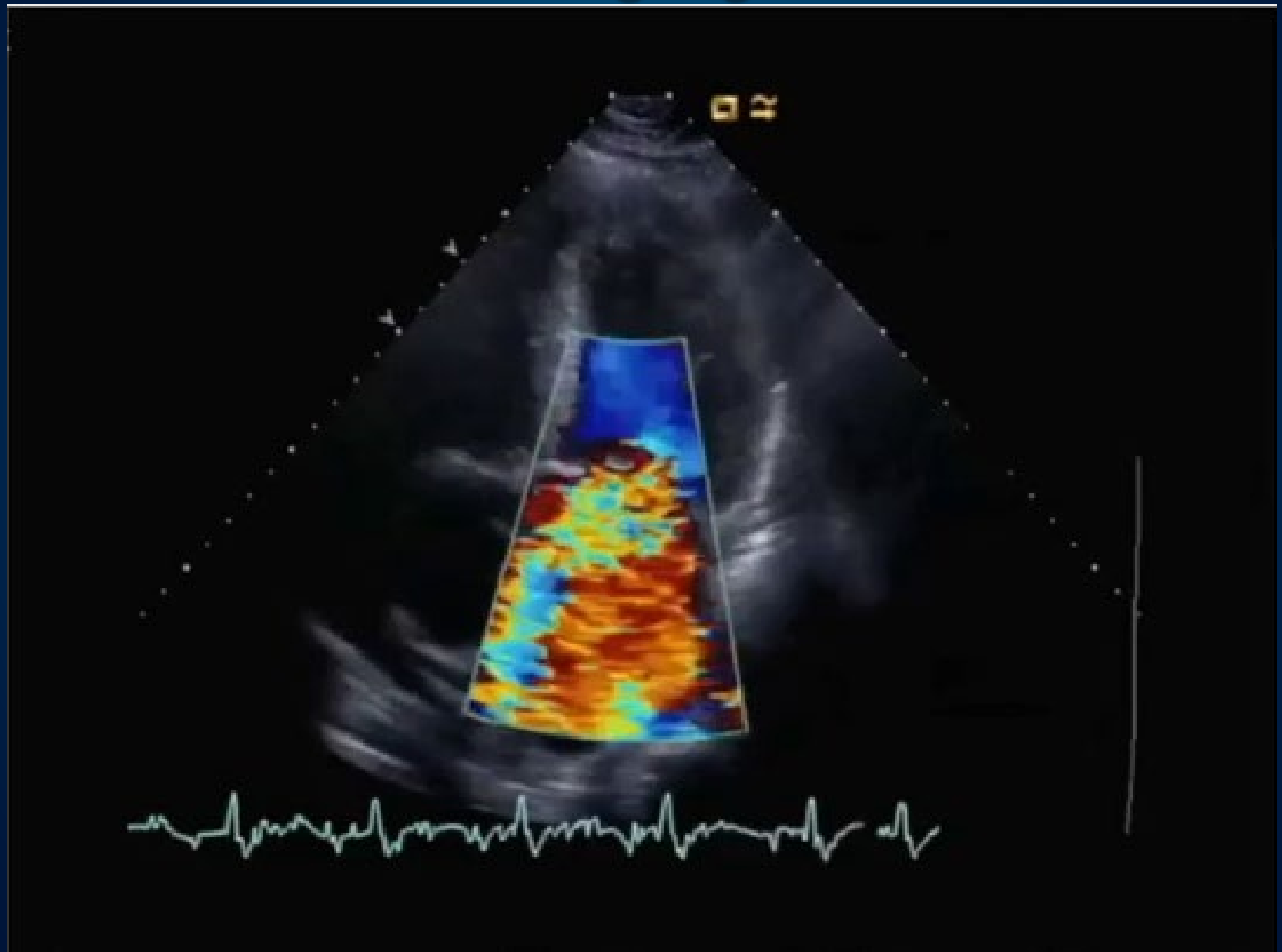
# Mitral regurgitation



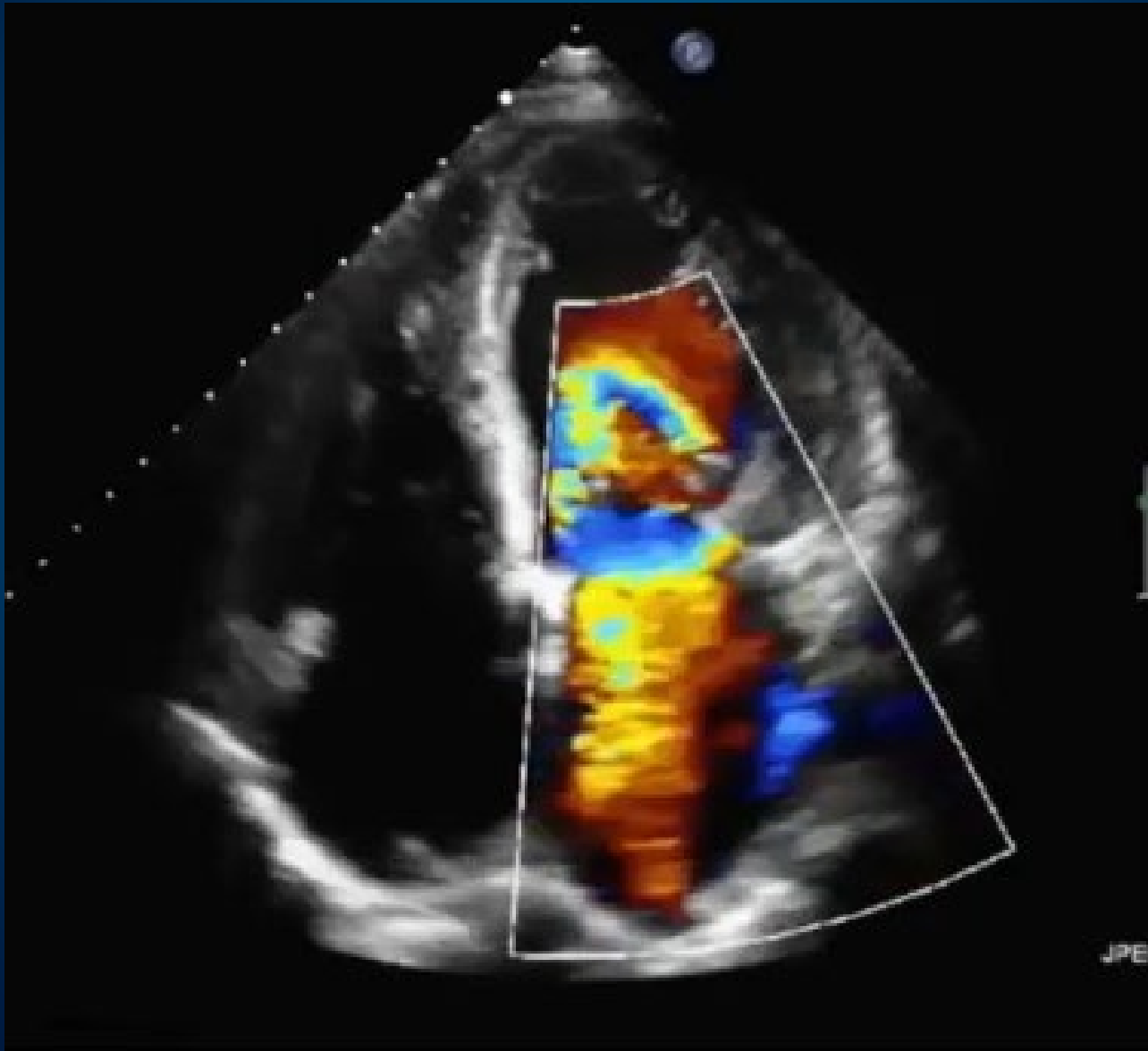
# Mitral regurgitation



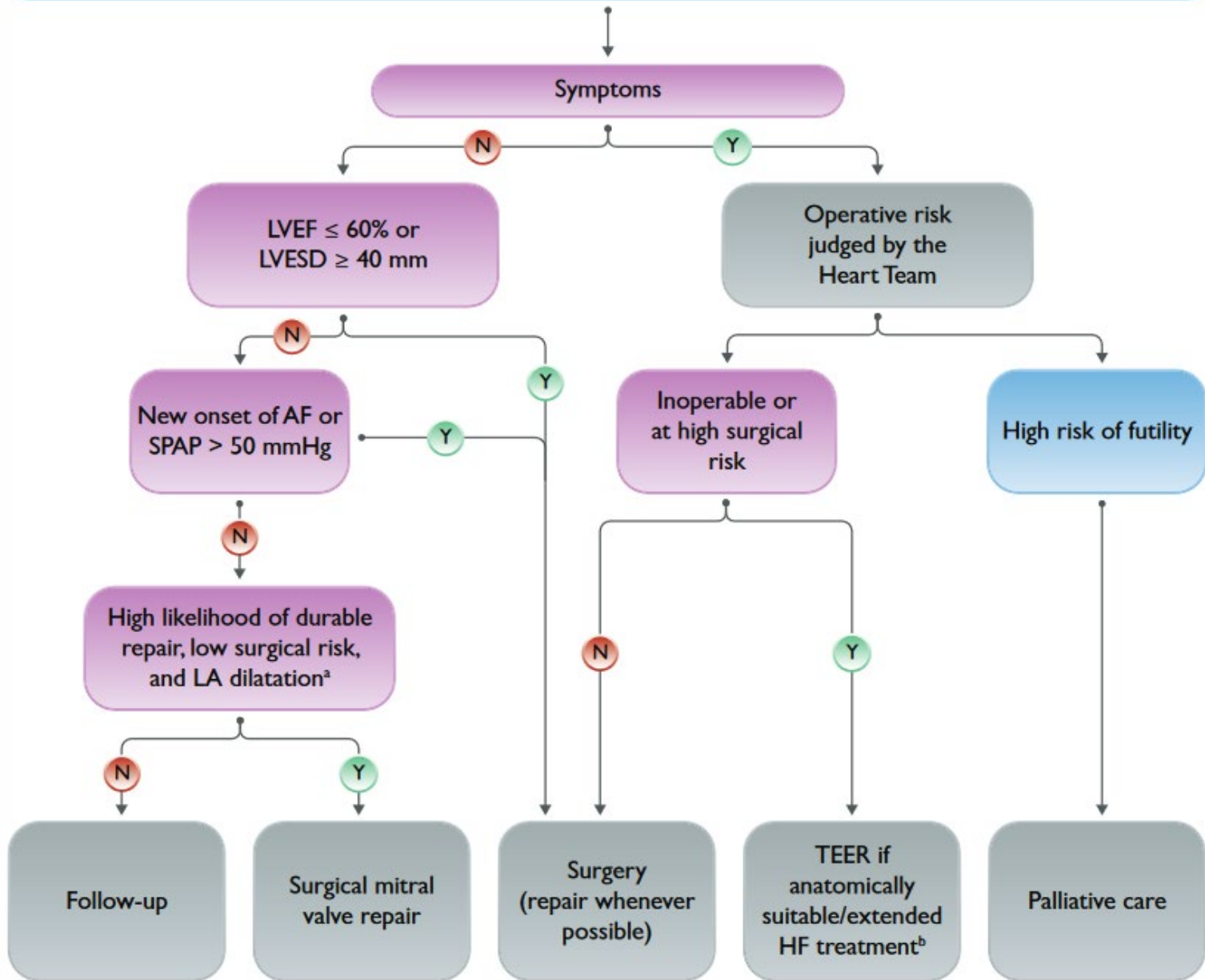
# Mitral regurgitation



# *Mitral regurgitation*



# Management of patients with severe chronic primary mitral regurgitation

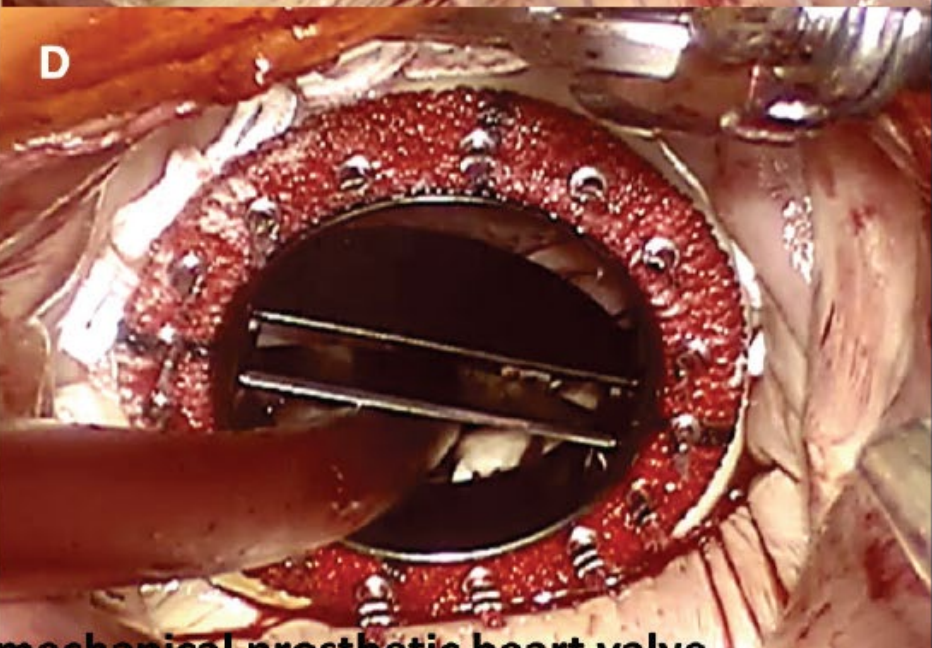
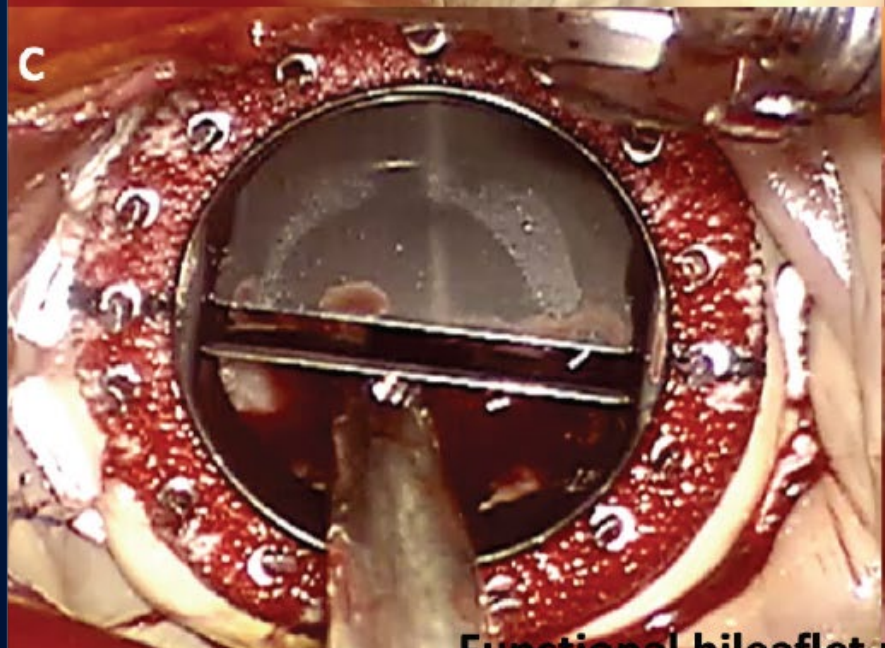
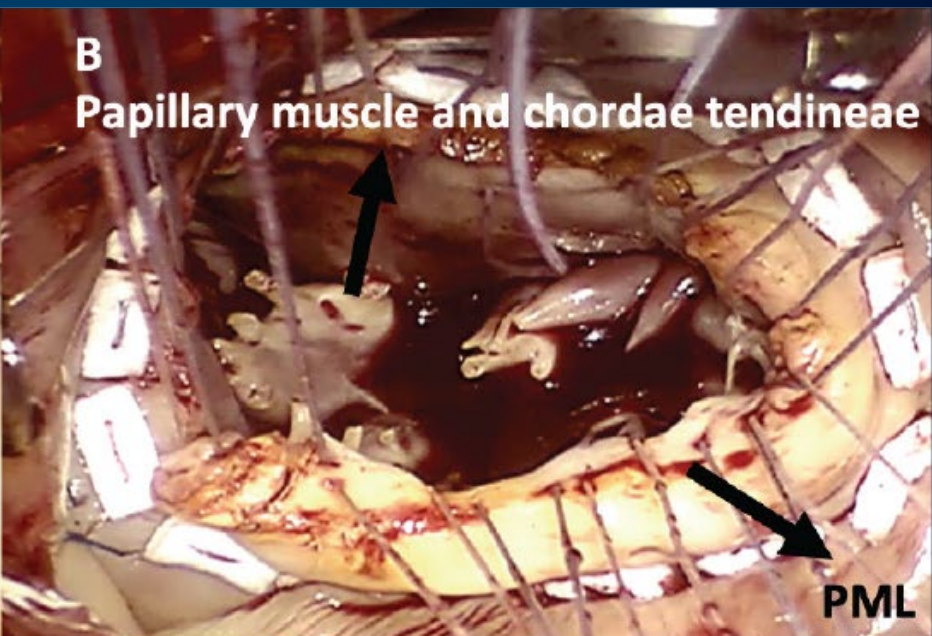
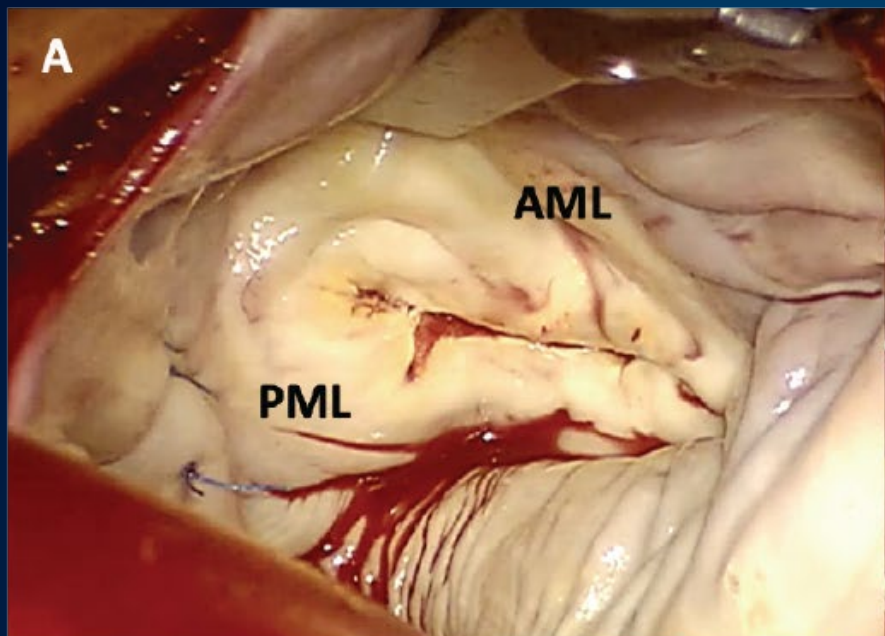


ESC



EACTS





Functional bileaflet mechanical prosthetic heart valve



