

# **SNS COLLEGE OF PHYSIOTHERAPY**

**Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai  
Coimbatore – 641035**

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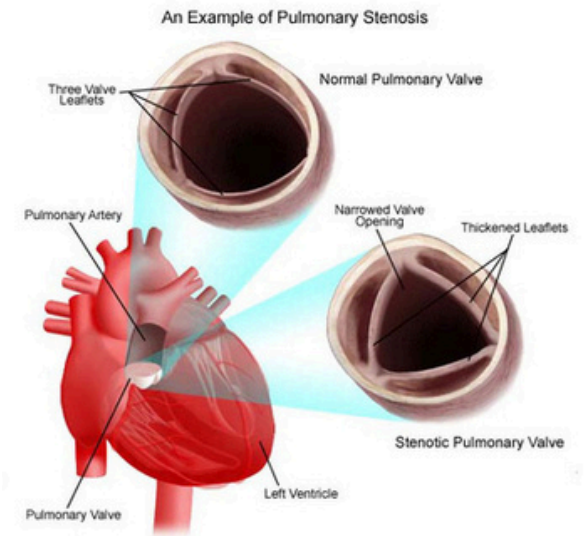
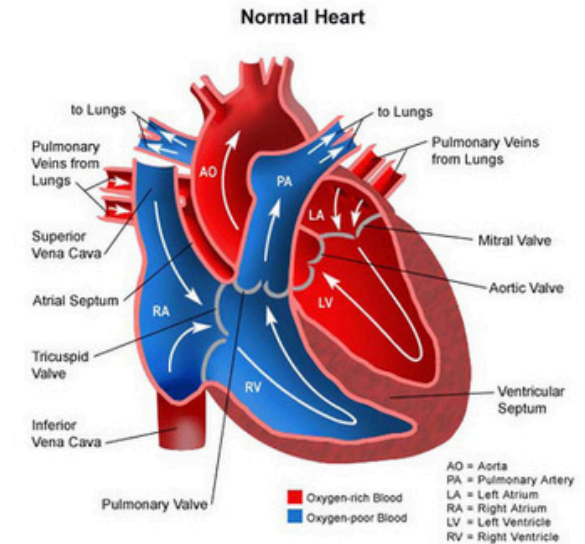
**COURSE NAME : Clinical cardio respiratory**

**SUBJECT CODE : 6286**

**TOPIC : Pulmonary Stenosis (PS)**

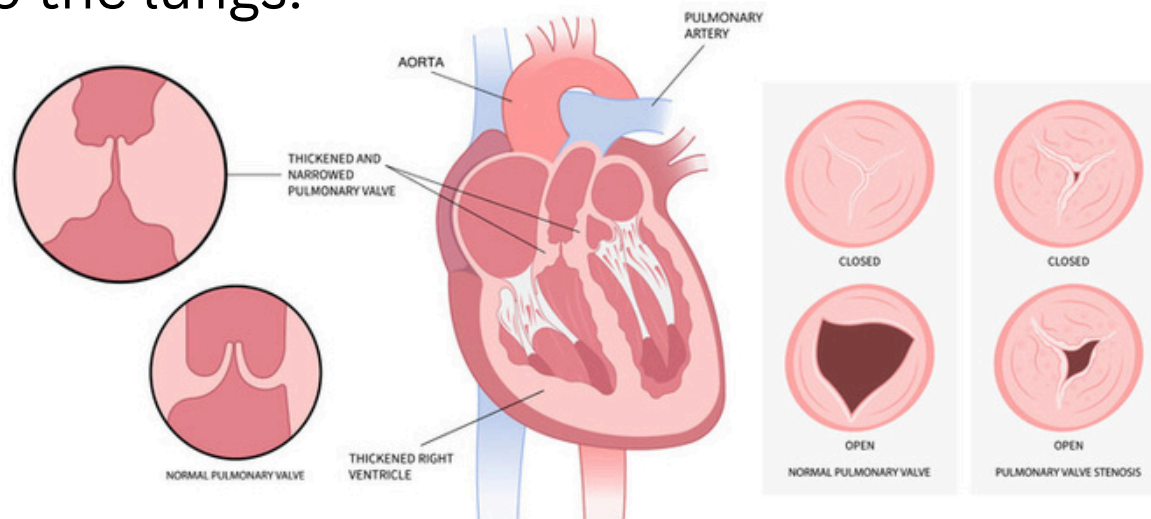
# INTRODUCTION

- Pulmonary Stenosis (PS) is a congenital heart defect characterized by obstruction to blood flow from the right ventricle to the pulmonary artery.
- The obstruction increases the workload on the right ventricle, leading to right ventricular hypertrophy.
- The severity of symptoms depends on the degree of stenosis.



# DEFINITION

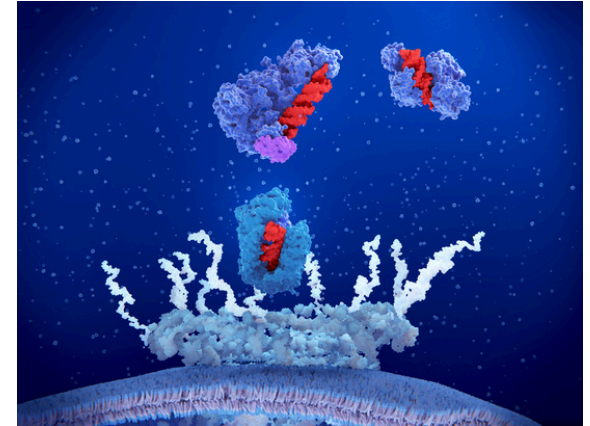
Pulmonary Stenosis (PS) is a congenital cardiac condition in which there is narrowing at the pulmonary valve or right ventricular outflow tract, resulting in obstruction to blood flow from the right ventricle to the lungs.



PULMONARY VALVE STENOSIS

# CAUSES

- Congenital malformation of pulmonary valve
- Fusion or thickening of pulmonary valve cusps
- Genetic factors
- Maternal infections during pregnancy
- Association with other congenital heart diseases (e.g., Tetralogy of Fallot)



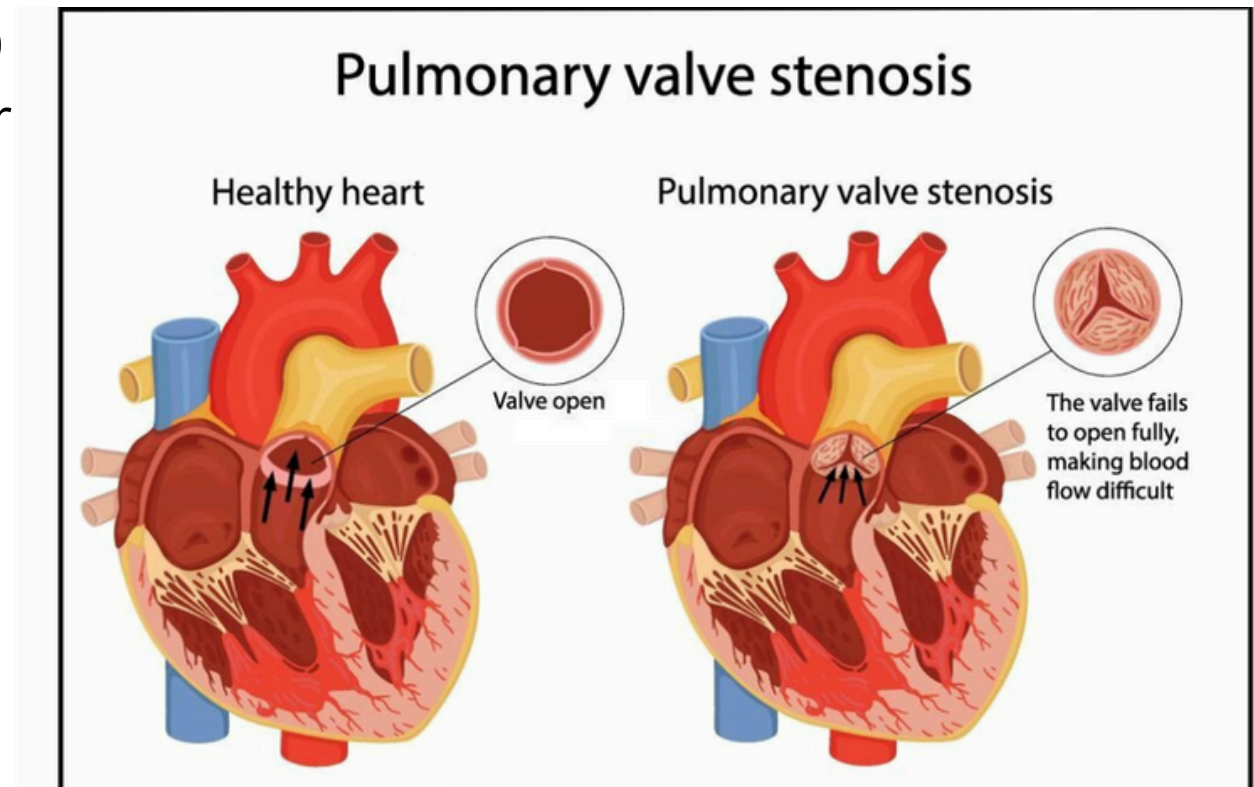
# PATHOPHYSIOLOGY

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- Narrowing of pulmonary valve or outflow tract
- Increased resistance to right ventricular ejection
- Increased right ventricular pressure
- Right ventricular hypertrophy
- Reduced pulmonary blood flow in severe cases
- Risk of right heart failure if untreated

# TYPES

- Valvular (most common)
- Subvalvular (infundibular)
- Supravalvular



# CLINICAL FEATURES

## 1. Mild PS

- Often asymptomatic
- Heart murmur detected incidentally



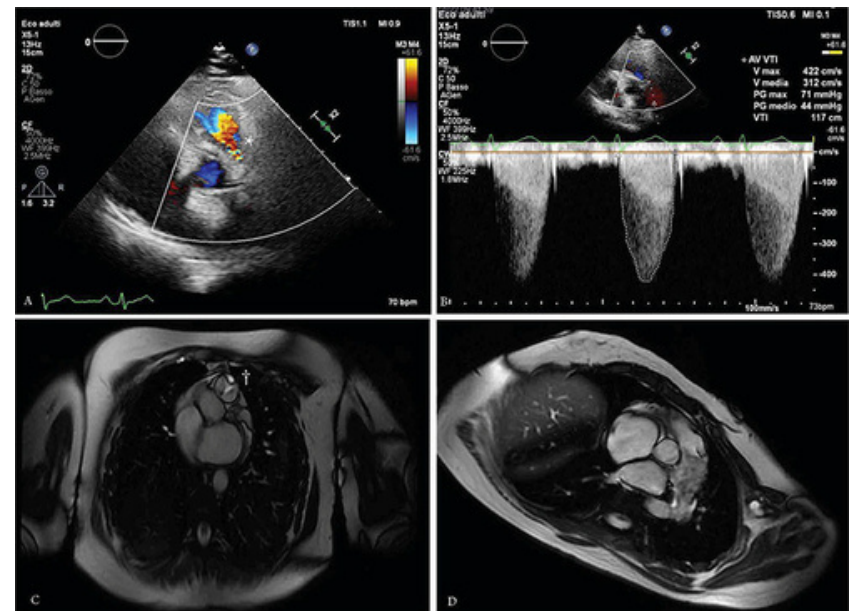
## 2. Moderate to Severe PS

- Dyspnea on exertion
- Fatigue
- Chest pain
- Syncope
- Cyanosis (severe cases)
- Signs of right ventricular hypertrophy



# DIAGNOSIS

- Clinical examination: Ejection systolic murmur in pulmonary area
- Chest X-ray: Right ventricular enlargement
- ECG: Right ventricular hypertrophy
- Echocardiography: Gold standard
- Cardiac catheterization: To measure pressure gradient



# Medical Management

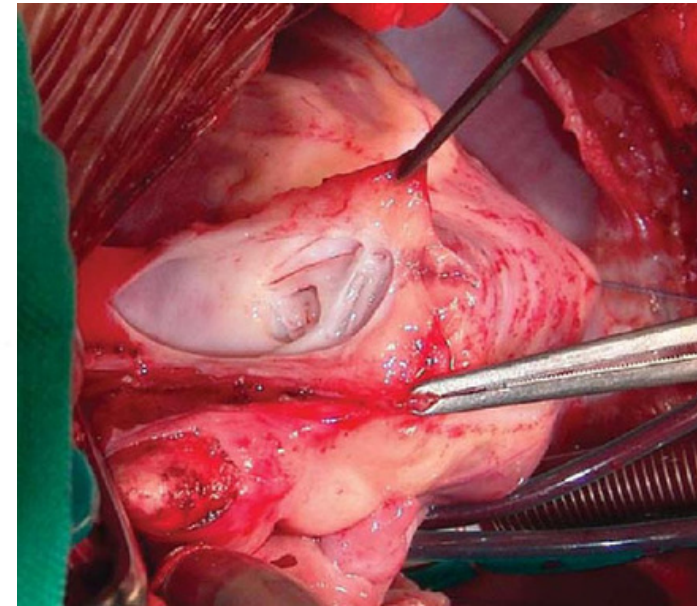
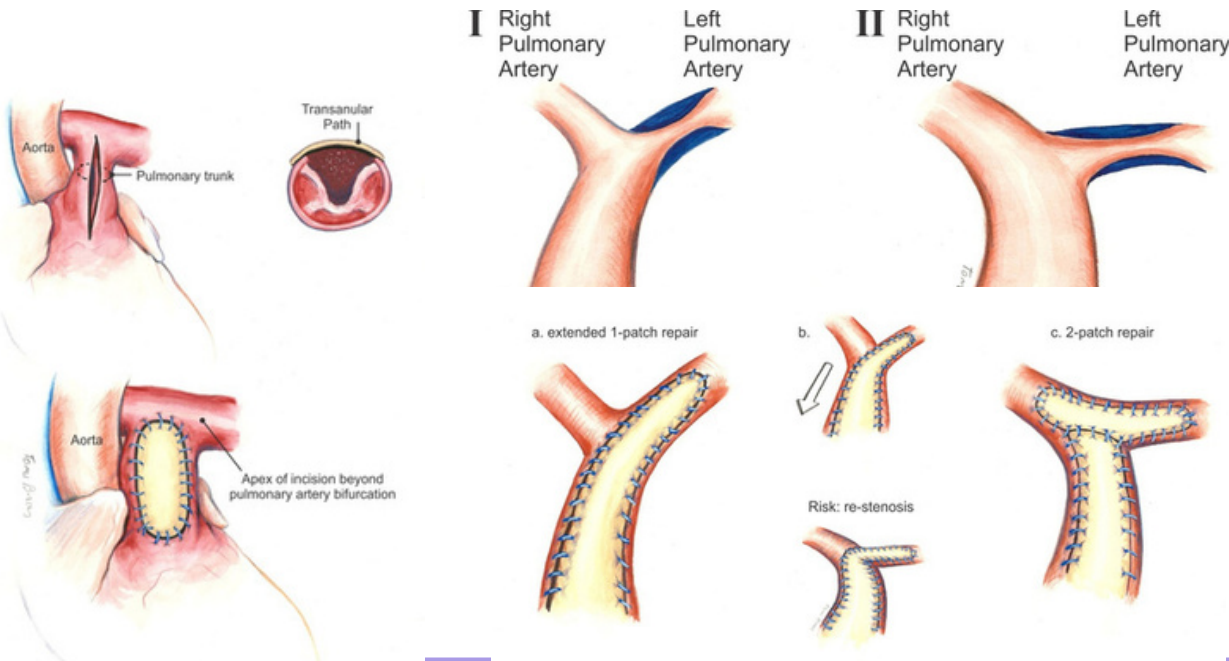
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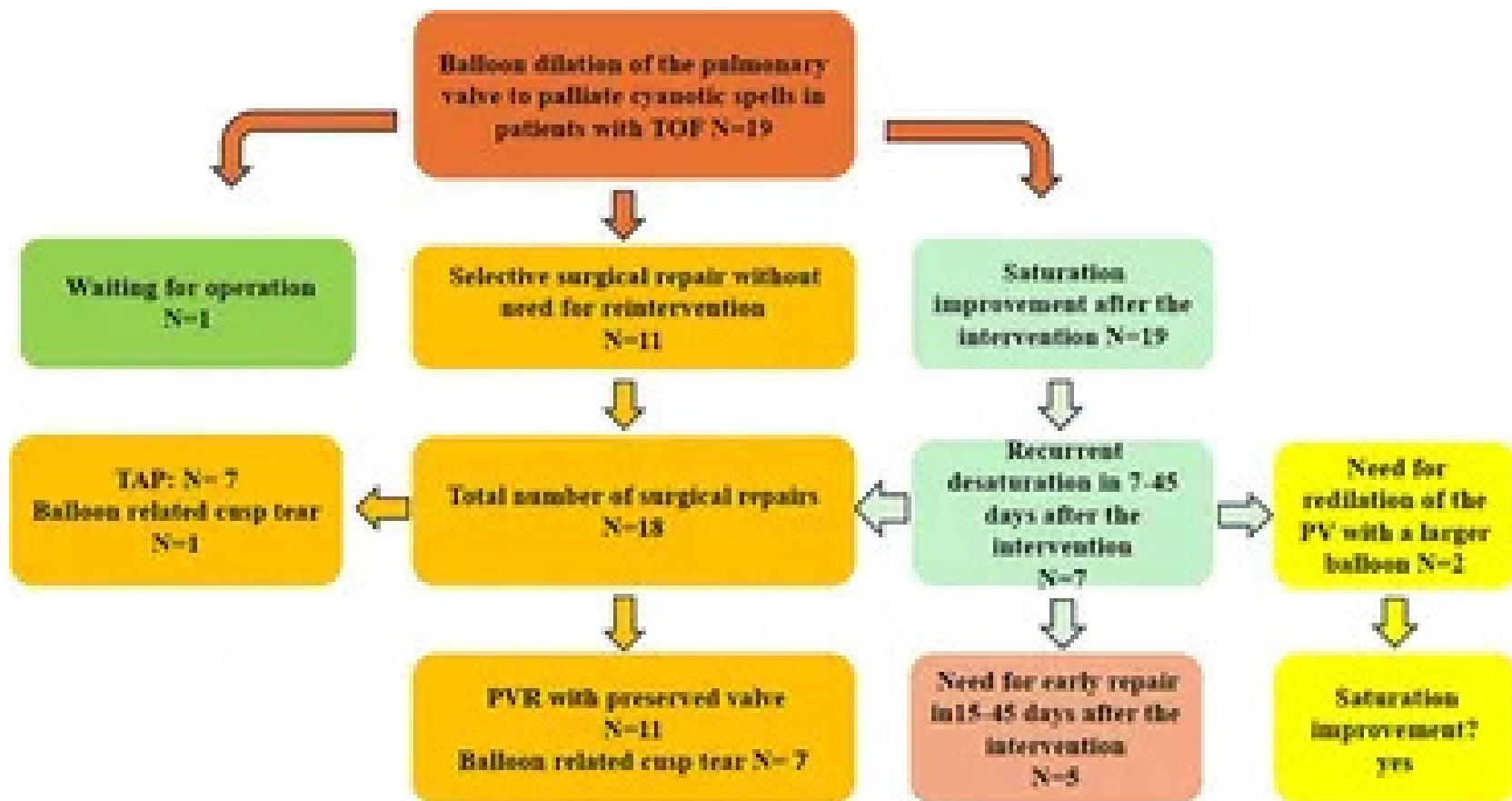
- Observation in mild cases
- Diuretics for right heart failure
- Beta blockers (if indicated)
- Management of arrhythmias
- Prophylaxis for infective endocarditis (if required)



# SURGICAL management

- Balloon pulmonary valvuloplasty (treatment of choice)
- Surgical valvotomy or valve repair
- Valve replacement in severe cases
- Early intervention prevents right ventricular dysfunction





# In class assessment

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1. Define Pulmonary Stenosis.
2. Which ventricle is affected in PS?
3. Name the most common type of Pulmonary Stenosis.
4. Mention one cause of PS.
5. What murmur is heard in PS?
6. Name the gold standard investigation for PS.
7. Mention one complication of severe PS.
8. What is the treatment of choice for valvular PS?
9. List one symptom of severe PS.
10. Mention one role of physiotherapy in PS.

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*Thank  
You*