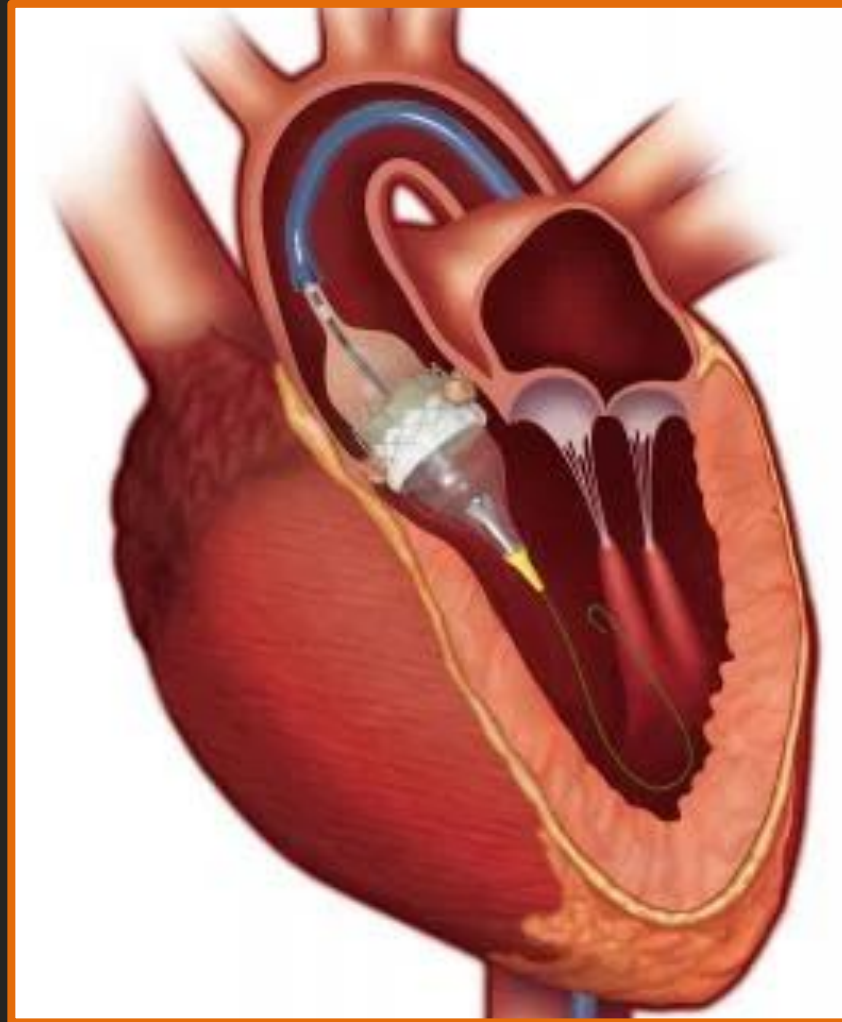




UTILIZATION AND CLINICAL TRENDS OF TRANSCATHETER AORTIC VALVE REPLACEMENT (TAVR) IN INDIA:

A Comprehensive Analysis of Adoption, Outcomes,
and Accessibility

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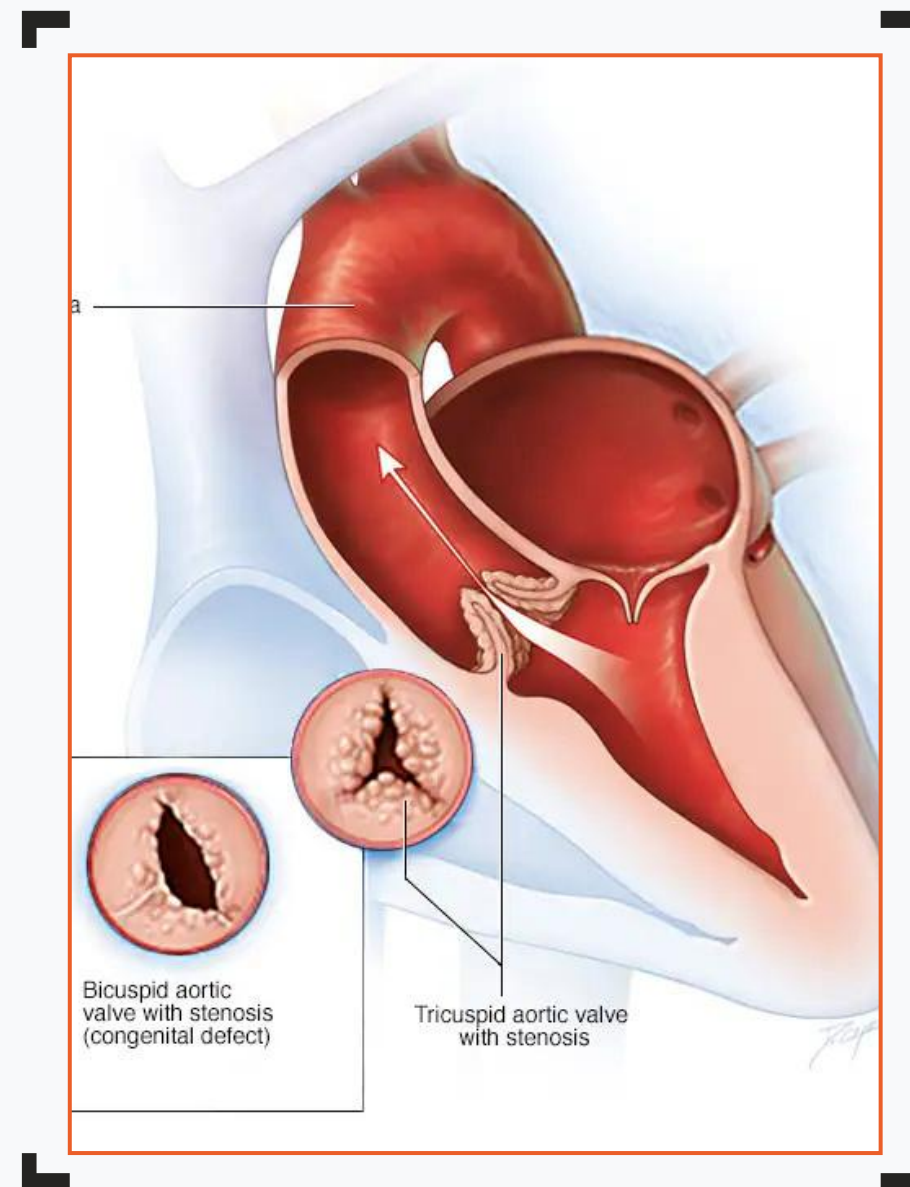
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AORTIC STENOSIS

Aortic stenosis is a condition where the aortic valve- the valve between the heart and the aorta becomes narrowed, making it harder for blood to flow from the heart to the body.

- Reduces blood flow from heart to the body
- Common in elderly due to age-related valve calcification
- Can lead to heart failure if untreated

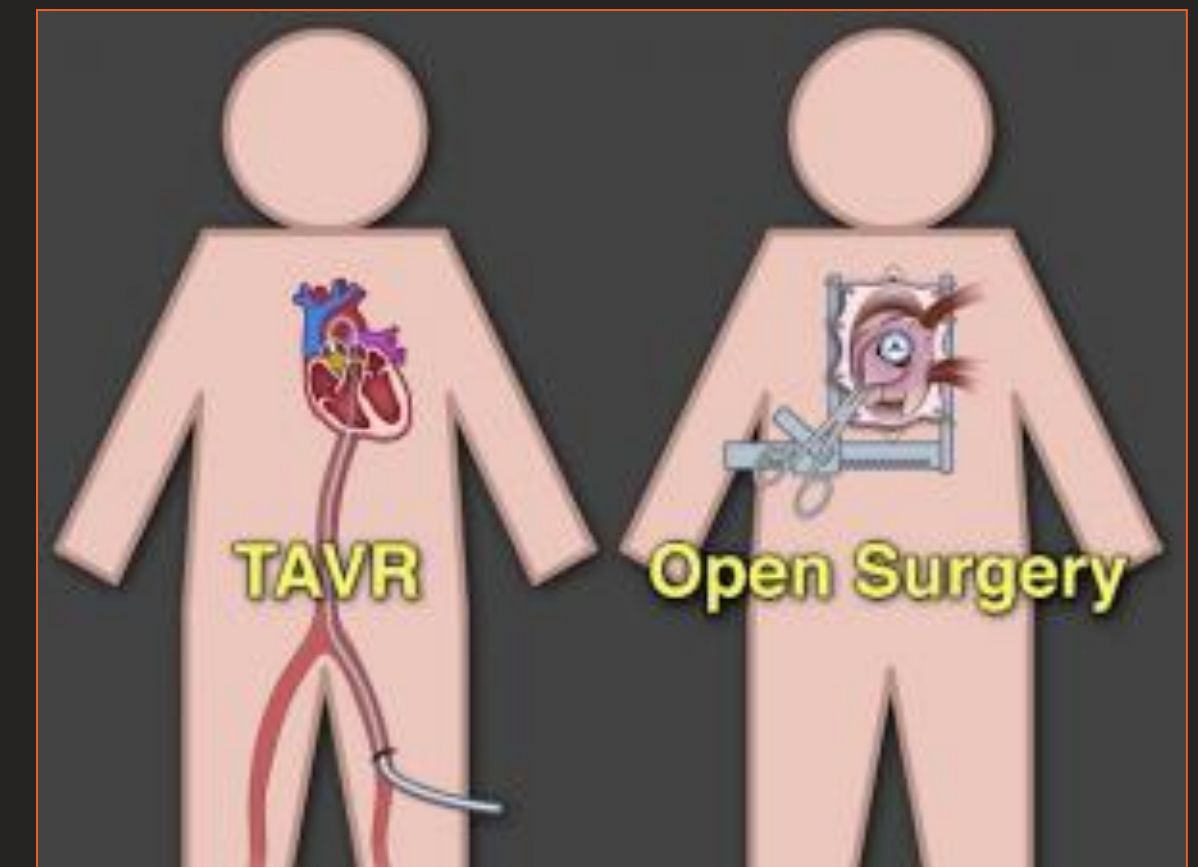


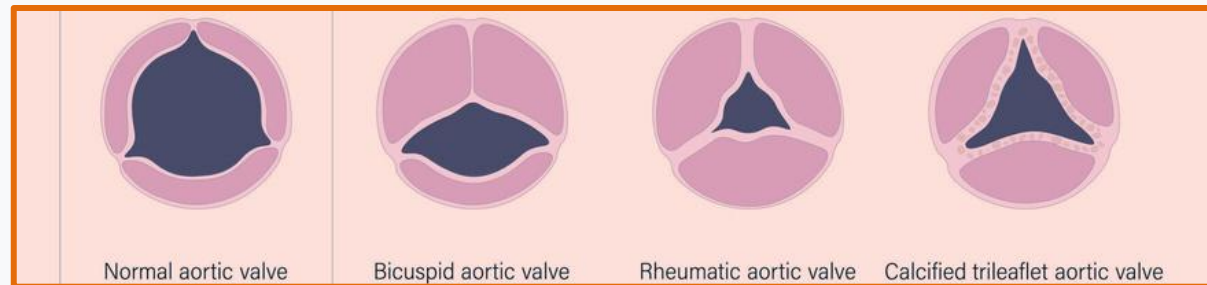
Symptoms:

- Chest pain,
- Breathlessness,
- Fatigue,
- Fainting

Treatments:

- Surgical Aortic Valve Replacement
- Transcatheter Aortic Valve Replacement





TAVR v/s SAVR

Minimally Invasive

TAVR is a non-surgical procedure where a new valve is inserted via a catheter, usually through the femoral artery.

Open heart surgery

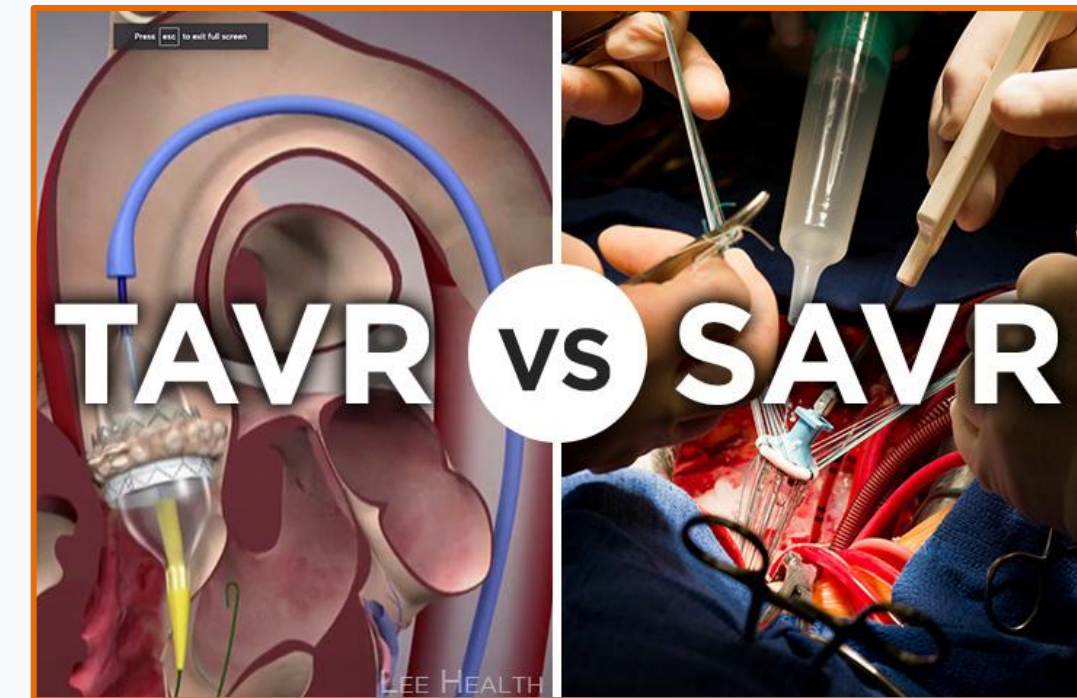
SAVR involves open-heart surgery, where the chest is opened and the damaged valve is surgically removed and replaced.

Older patient demographic

It is best suited for elderly patients or those at high surgical risk due to other health issues.

Younger patient demographic

It is typically recommended for younger or low-risk patients who can tolerate major surgery.



TREATMENT OF AS

RESEARCH OBJECTIVES

- Evaluate TAVR utilization trends in India
- Assess clinical outcomes from Indian studies
- Identify adoption barriers and recommend solutions

- What is the current trend in the utilization of TAVR across Indian hospitals?
- How do clinical outcomes of TAVR in India compare with international benchmarks?
- What are the major barriers to accessibility and affordability of TAVR in India?

RESEARCH QUESTIONS

RESEARCH METHODOLOGY



Study Design



This research follows a narrative literature review of secondary data on AVD epidemiology and TAVR utilization in India.

Study Design

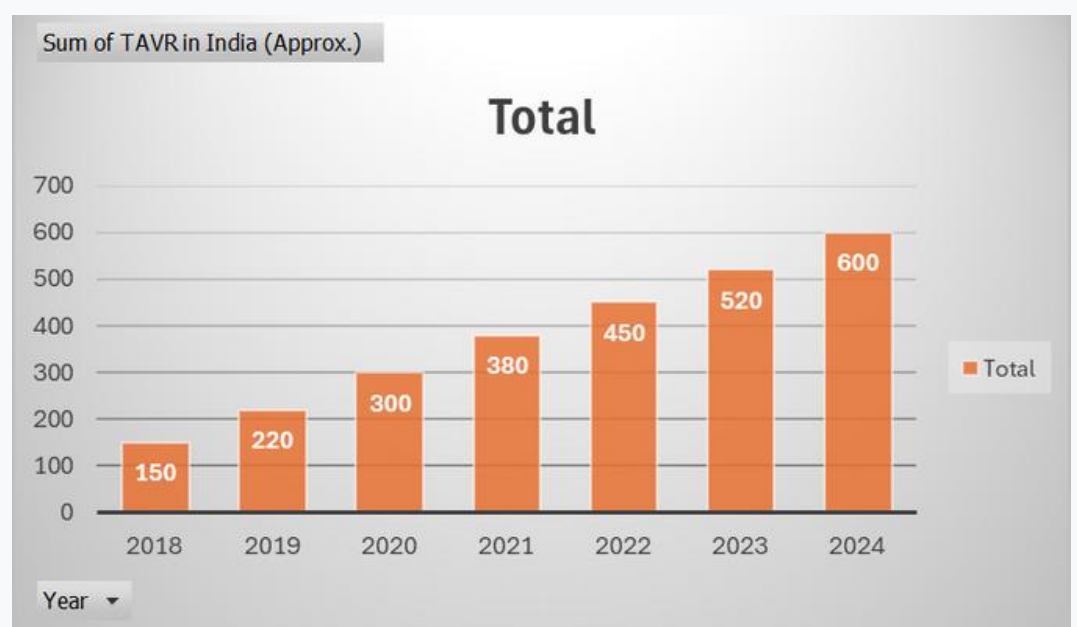
Data was collected from reputable databases including:

- PubMed
- Indian Heart Journal
- Cardiovascular Surgery Reports,
- Ministry of Health Publications
- Google Scholar

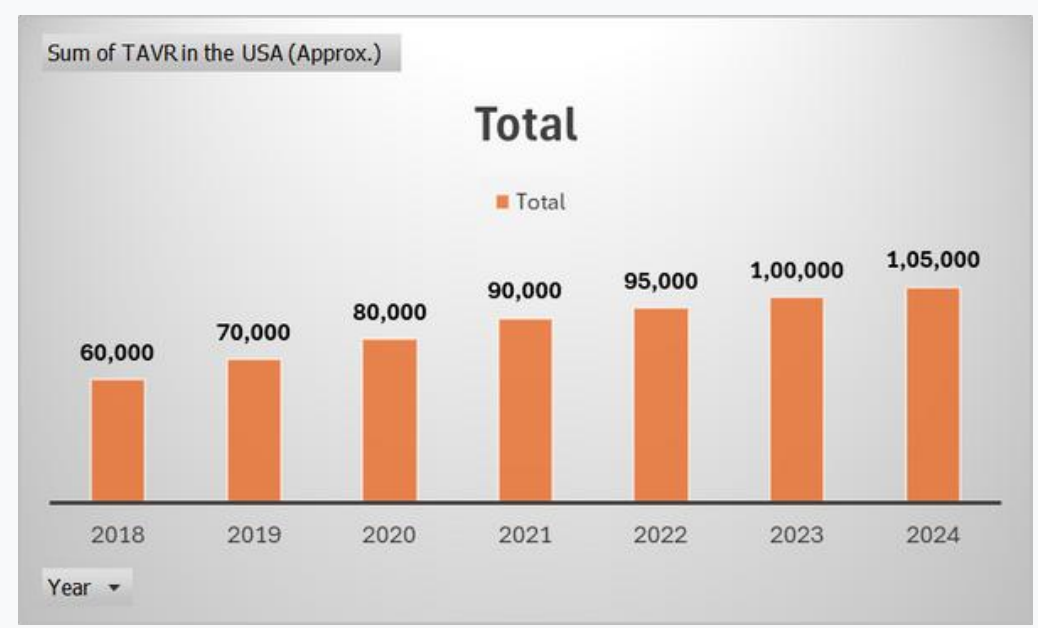


TAVR adoption in India remains significantly lower than in the USA despite steady growth—highlighting an urgent need for expanded access and policy support.

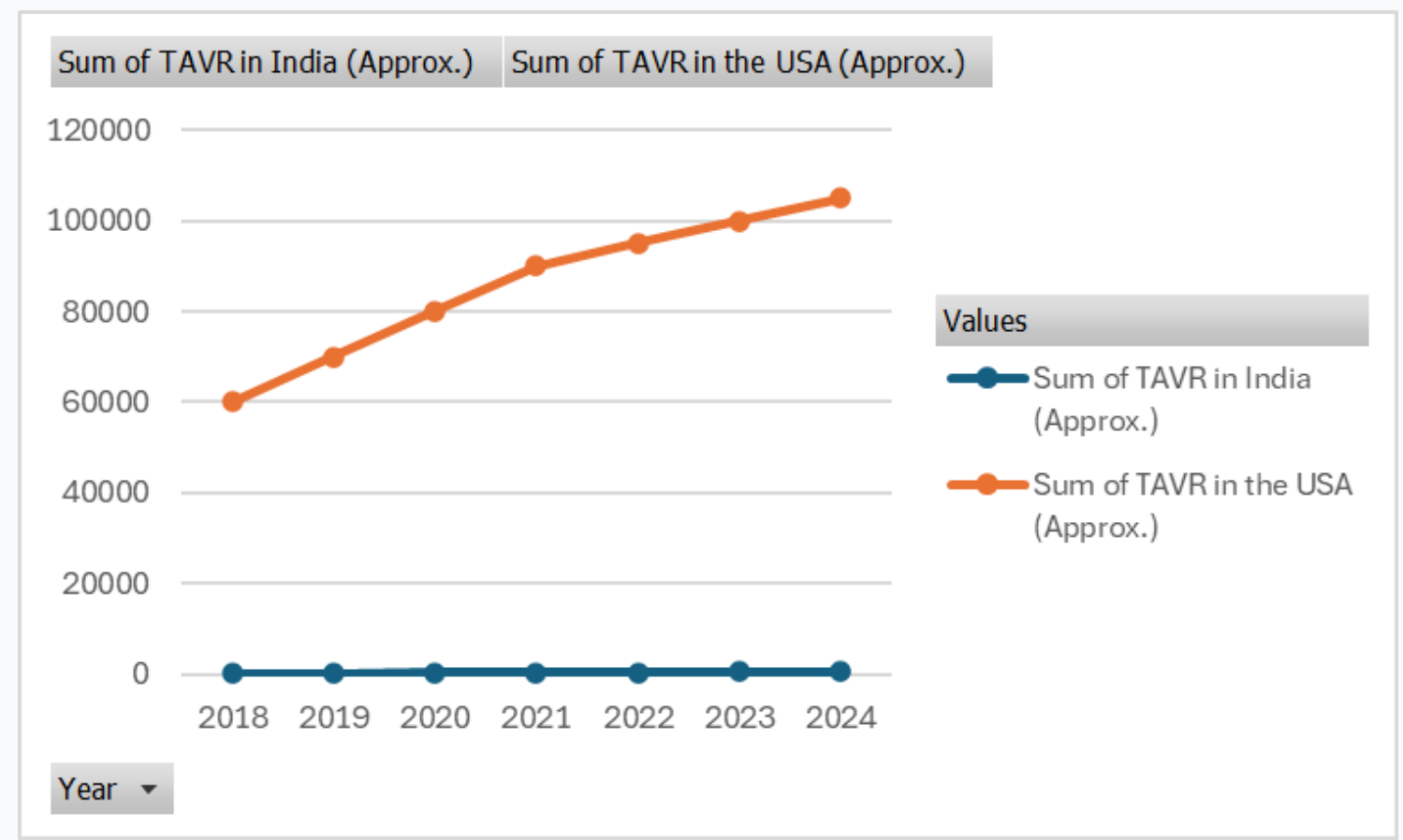
TAVR cases treated in India



TAVR cases treated in the US



TAVR utilization in India vs the US →



CLINICAL OUTCOMES

- **Procedural Success Rate**

India: ~96–99%

USA: ~97–99%

Comparable success rates across both countries

- **30-Day Mortality Rate**

India: ~2–5%

USA: ~2–3%

Acceptably low and similar to global standards

- Indian patients report significant improvement in symptoms and functional status, matching international standards.

- **High Procedure Cost**

₹18–25 lakhs per procedure; unaffordable for most patients

- **Limited Insurance Coverage**

Not covered under Ayushman Bharat; very few private plans include TAVR

- **Urban-Centric Availability**

Mostly performed in metro cities; minimal presence in Tier 2/3 hospitals

- **Shortage of Trained Teams**

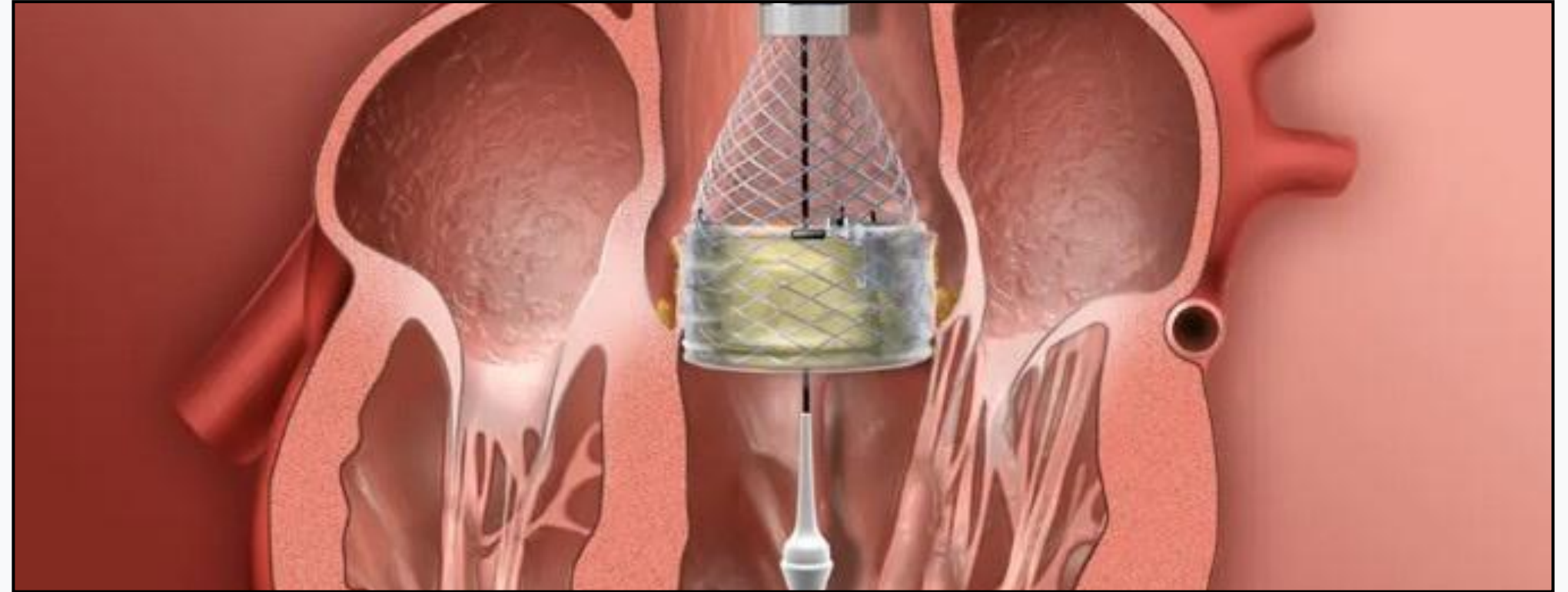
Requires specialized ‘Heart Teams’ and advanced infrastructure

- **Lack of Awareness**

Among patients and even general physicians about TAVR as a treatment option

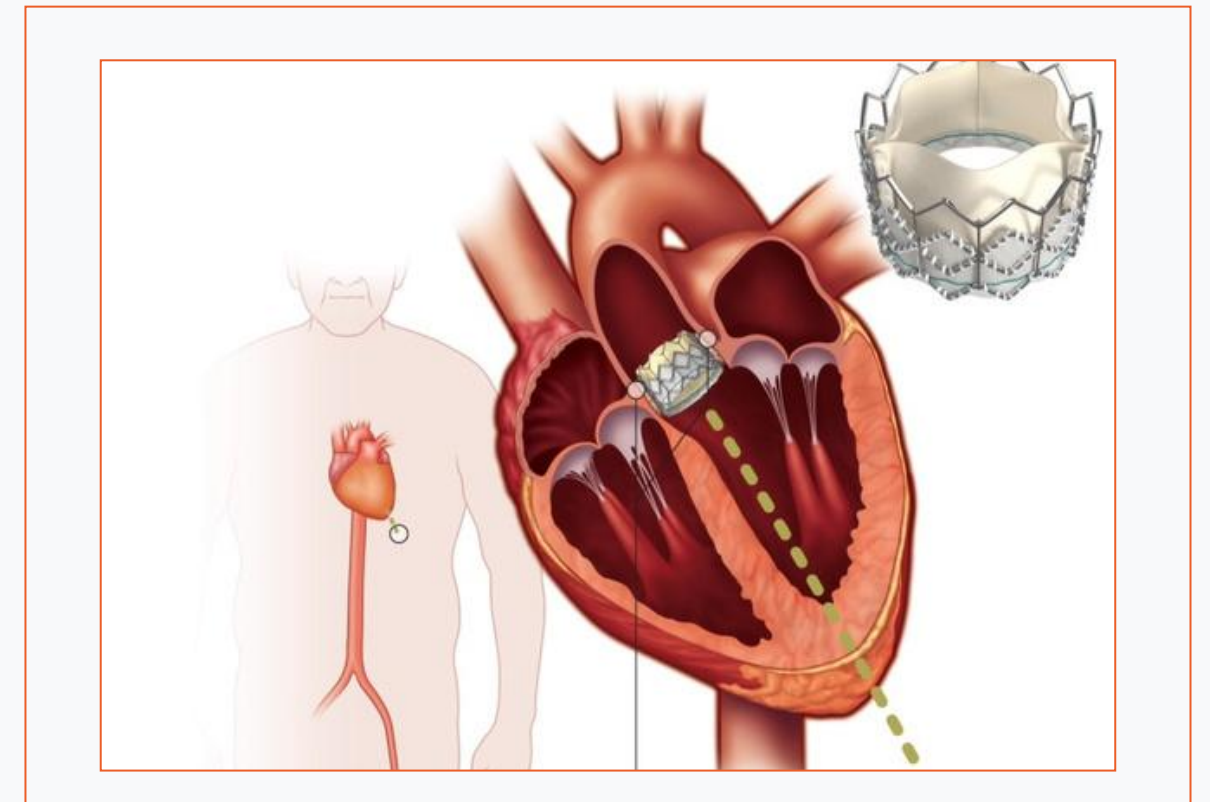
BARRIERS TO ACCESS

CONCLUSION



“TAVR in India: A Life-Saving Innovation Waiting to Reach All”

TAVR represents a major leap forward in treating severe aortic stenosis, offering minimally invasive care with excellent outcomes. In India, while early results are promising, its reach remains limited to select urban centers. With focused policy action, cost reduction, and public awareness, TAVR can transition from an elite procedure to a widely accessible, life-saving solution for our ageing population.





THANK YOU

