

A TMVR Case of Delayed Gratification

David B Marmor, MD FACC
July 11, 2024

HPI

88YO woman with history of:

- Myxomatous mitral valve disease s/p bioprosthetic MVR with a 31 mmCE Magna valve and TV repair/Maze/LAA ligation in 2011
- atrial flutter s/p ablation in 2013
- Now with worsening shortness of breath, leg edema, and decreased appetite over the past 1-2 months.
- Not on anticoagulation due to epistaxis and successful surgical LAA exclusion

Physical Examination

BP 104/70, HR 96

Elevated neck veins with JVP 15 cm

Heart irregular with soft systolic murmur at 2/4 diastolic murmur

Decreased breath sounds at R base

Abdomen soft

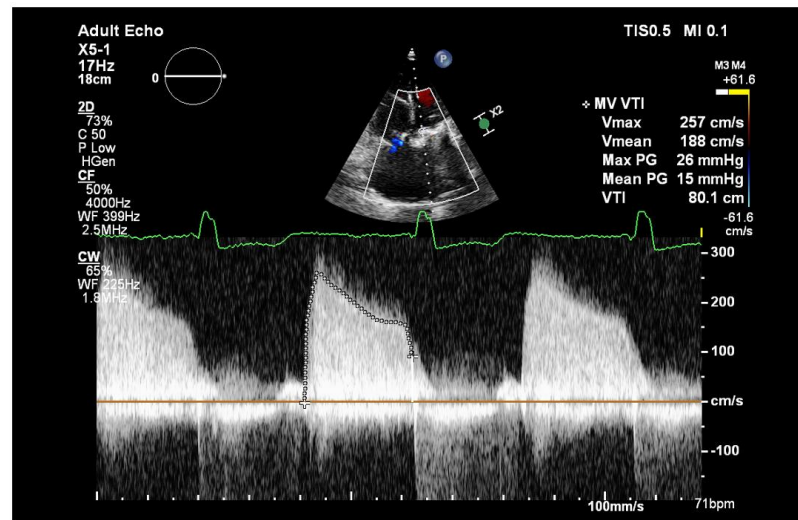
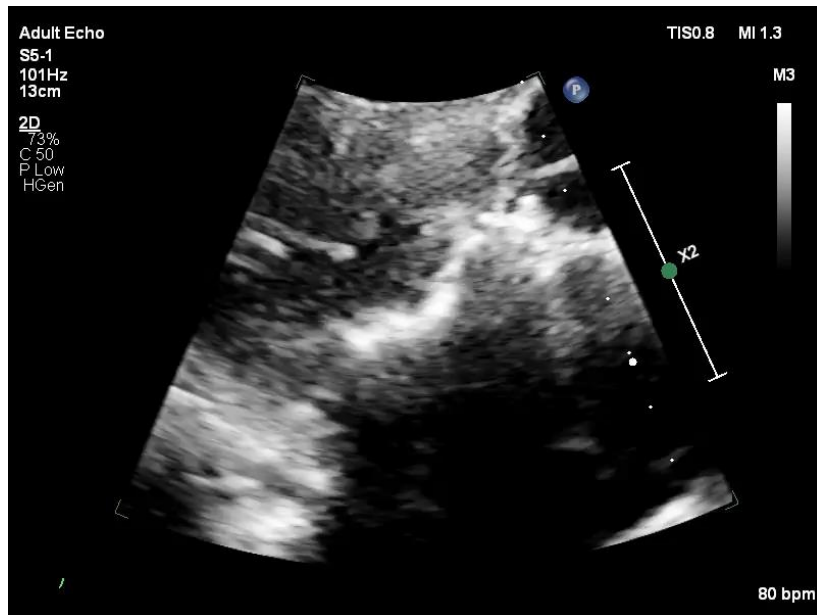
2-3+ pitting edema of lower extremities with weeping



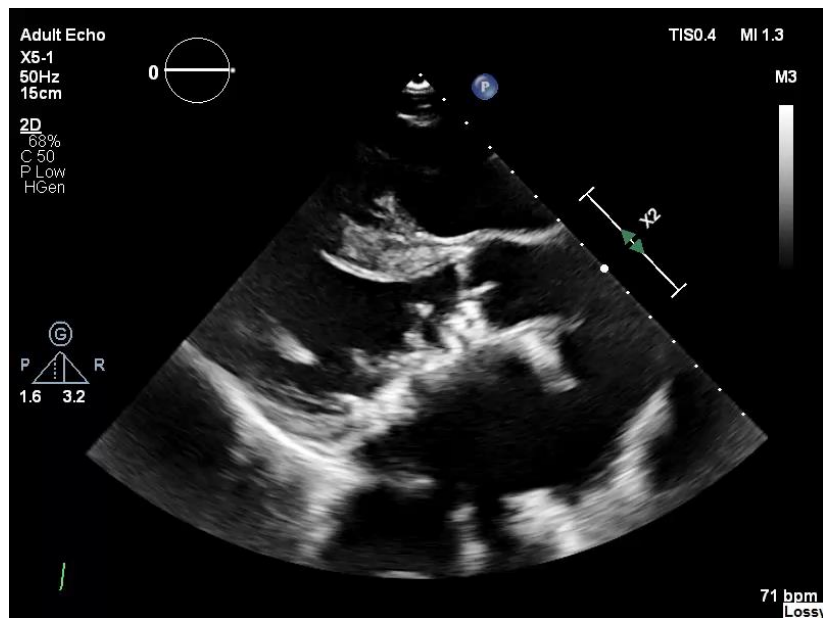
SHEBA
Tel HaShomer

The Leviev
**Cardiothoracic &
Vascular Center**

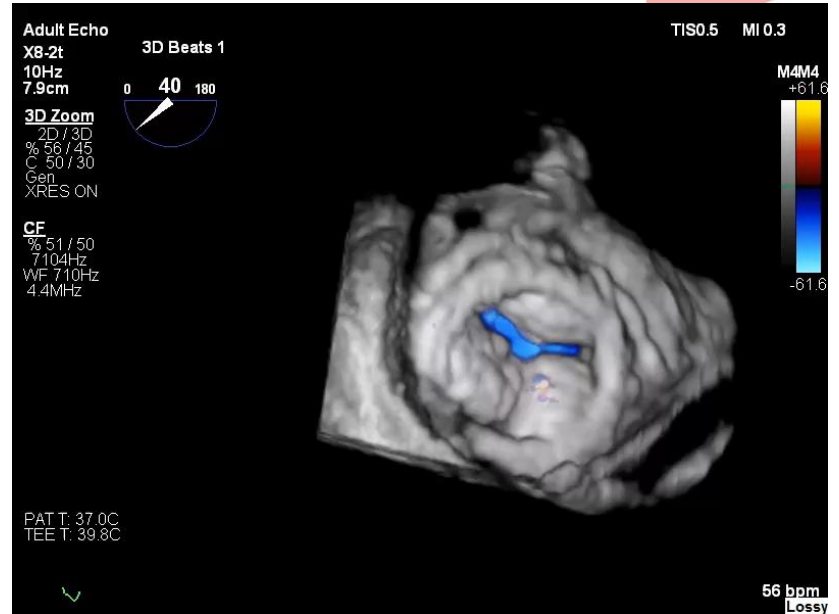
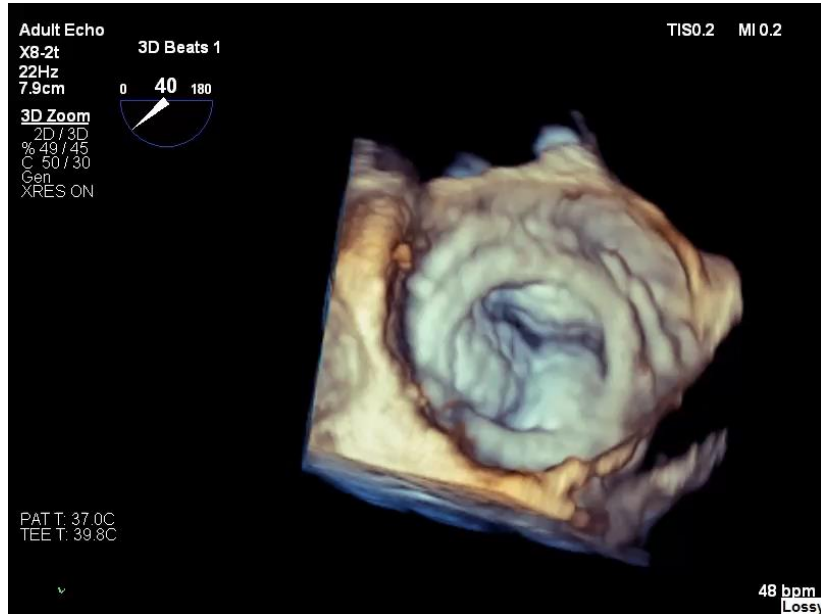
Transthoracic Echo



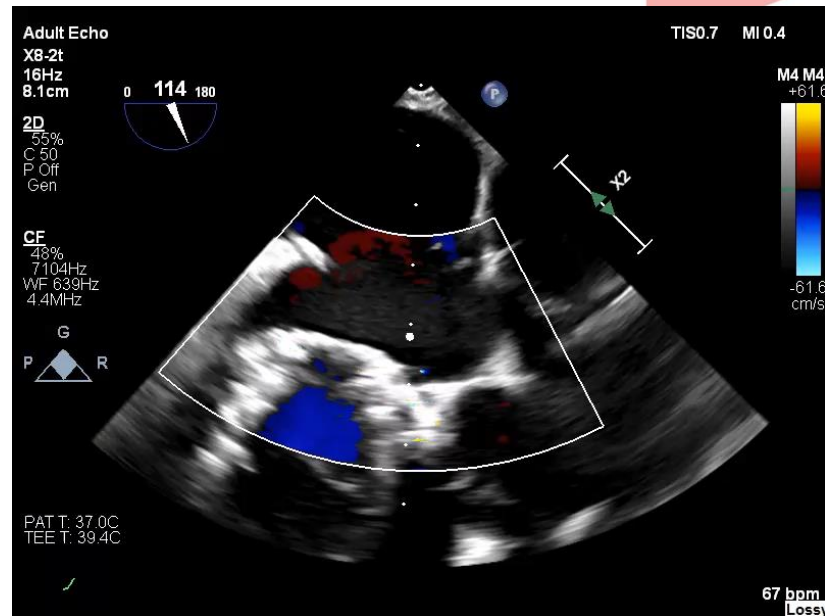
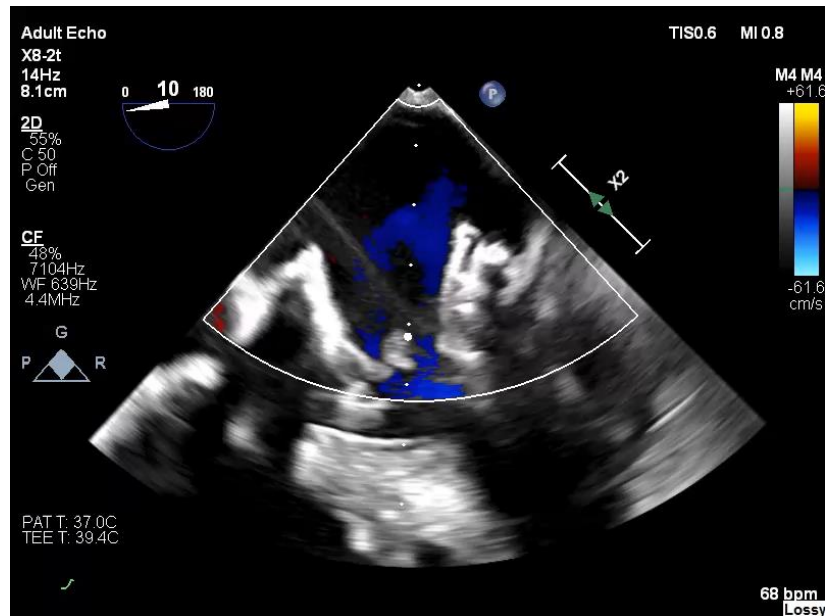
Cath Lab for TMVR



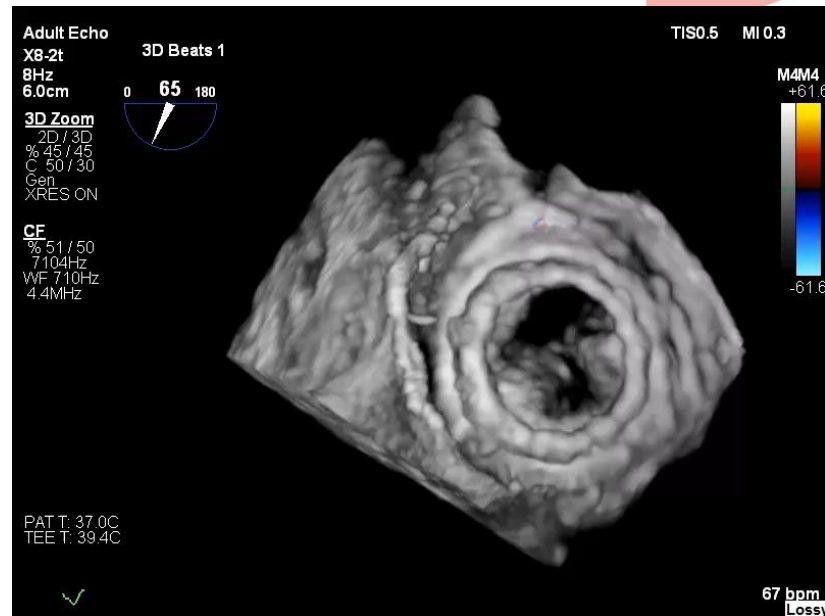
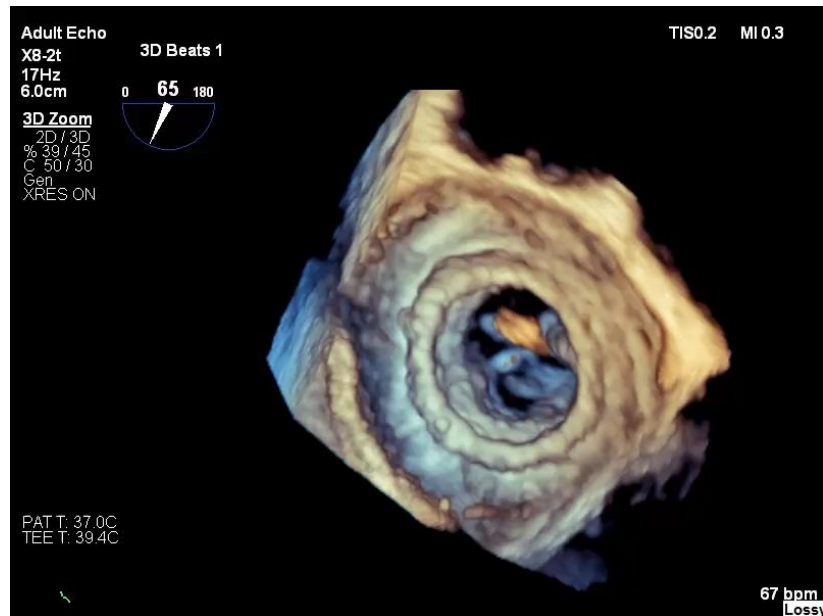
Pre-Implantation TEE



Post Implantation



Post Implantation



Post Implantation Fluoro



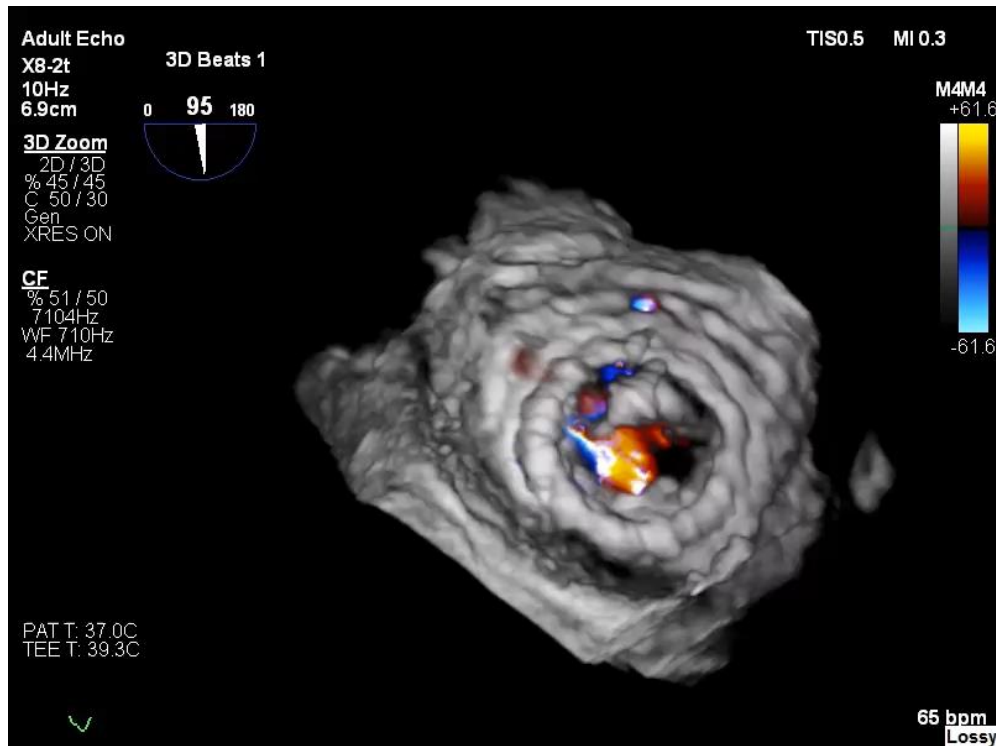
Lossy



SHEBA
Tel HaShomer

The Leviev
Cardiothoracic &
Vascular Center

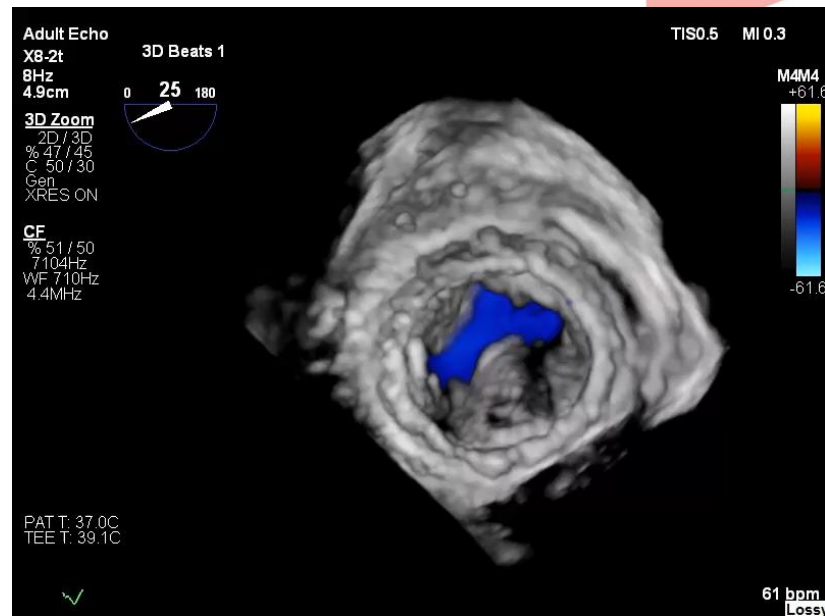
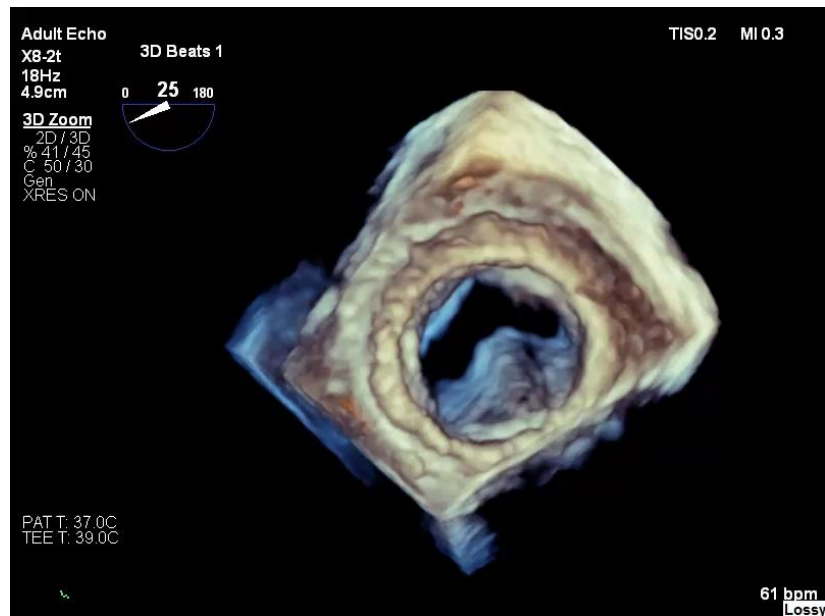
Post Implantation (+3 minutes)



SHEBA
Tel HaShomer

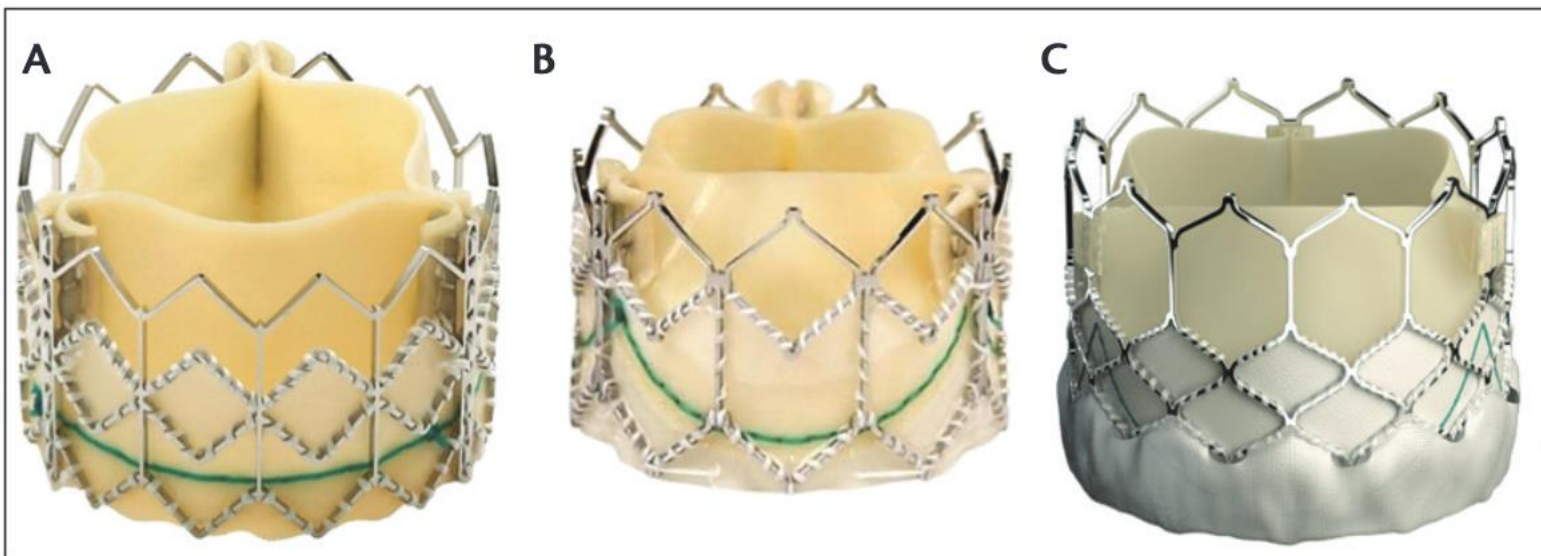
The Leviev
Cardiothoracic &
Vascular Center

Final Result



So What Happened???

The Edwards Sapien Valve



Edwards SAPIEN 3 Transcatheter Heart Valve

Built upon the proven benefits of the SAPIEN valve family

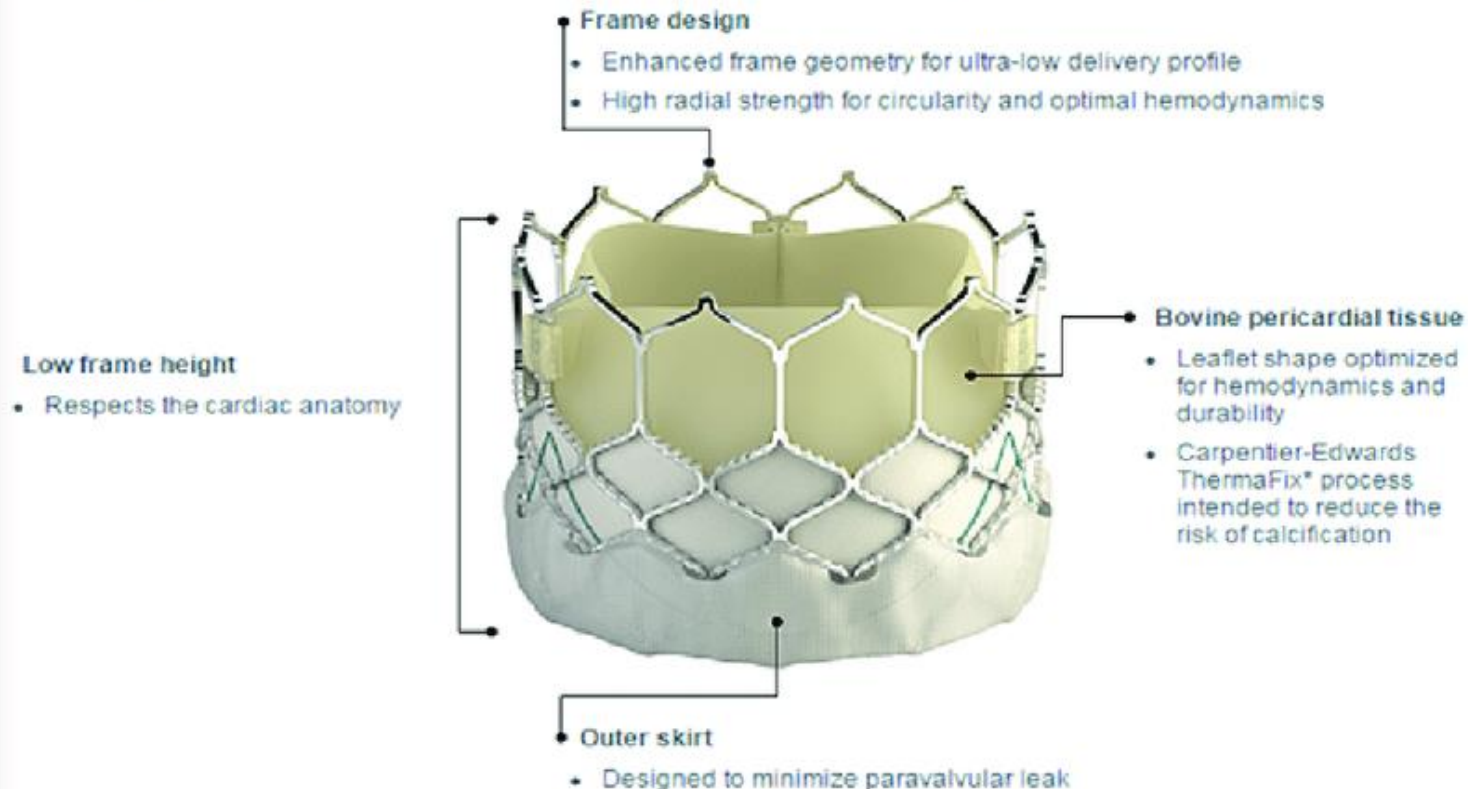


TABLE 3. OUTCOMES WITH THE SAPIEN FAMILY OF VALVES*

Outcome Endpoints	Sapien	Sapien XT	Sapien 3
Stroke	5.5%–6.7%	4.3%–6.3%	2.7%
Major vascular complication	16%	11%–13%	6%
Procedural success	96%	97%	94%
Trace/no aortic insufficiency	22.6%	64%–78%	72%
Permanent pacemaker	5%	8%–11%	13.3%
Mortality, 30 d	3.4%–6.3%	3.5%–4.2%	2.1%

**The data on Sapien XT and Sapien 3 are based on registry and nonrandomized studies.*



SHEBA
Tel HaShomer

The Leviev
**Cardiothoracic &
Vascular Center**

(12) **United States Patent**
Levi et al.

(10) **Patent No.: US 10,932,903 B2**
(45) **Date of Patent: Mar. 2, 2021**

(54) **SKIRT ASSEMBLY FOR IMPLANTABLE
PROSTHETIC VALVE**

(71) Applicant: **Edwards Lifesciences Corporation,**
Irvine, CA (US)

(72) Inventors: **Tamir S. Levi,** Zikhron Yaakov (IL);
Yair A. Neumann, Moshav Sede
Varburg (IL)

(73) Assignee: **Edwards Lifesciences Corporation,**
Irvine, CA (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 5 days.

(21) Appl. No.: **16/059,913**

(22) Filed: **Aug. 9, 2018**

(65) **Prior Publication Data**

US 2019/0053897 A1 Feb. 21, 2019

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,409,013 A 11/1968 Berry
3,548,417 A 12/1970 Kisher
(Continued)

FOREIGN PATENT DOCUMENTS

DE 2246526 A1 3/1973
DE 19532846 A1 3/1997
(Continued)

OTHER PUBLICATIONS

H.R. Andersen, et al. "Transluminal Implantation of Artificial Heart
Valve. Description of a New Expandable Aortic Valve and Initial
Results with implantation by Catheter Technique in Closed Chest
Pig," European Heart Journal, No. 13. pp. 704-708. 1992.

(Continued)

Primary Examiner — Matthew W Schall

(74) *Attorney, Agent, or Firm* — Edwards Lifesciences;
Hans P Smith



Tel HaShomer

**Oracic &
Vascular Center**

(12) **United States Patent**
Levi et al.

(10) **Patent No.: US 10,932,903 B2**
(45) **Date of Patent: Mar. 2, 2021**

(54) **SKIRT ASSEMBLY FOR IMPLANTABLE
PROSTHETIC VALVE**

(71) Applicant: **Edwards Lifesciences Corporation,**

(72) Inventors: **Tamir S. Levi, Zikhron Yaakov (IL);
Yair A. Neumann, Moshav Sede
Varburg (IL)**

(73) Assignee: **Edwards Lifesciences Corporation,**
Irvine, CA (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 5 days.

(21) Appl. No.: **16/059,913**

(22) Filed: **Aug. 9, 2018**

(65) **Prior Publication Data**

US 2019/0053897 A1 Feb. 21, 2019

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,409,013 A 11/1968 Berry
3,548,417 A 12/1970 Kisher
(Continued)

FOREIGN PATENT DOCUMENTS

DE 2246526 A1 3/1973
DE 19532846 A1 3/1997
(Continued)

OTHER PUBLICATIONS

H.R. Andersen, et al. "Transluminal Implantation of Artificial Heart
Valve. Description of a New Expandable Aortic Valve and Initial
Results with implantation by Catheter Technique in Closed Chest
Pig," European Heart Journal, No. 13. pp. 704-708. 1992.

(Continued)

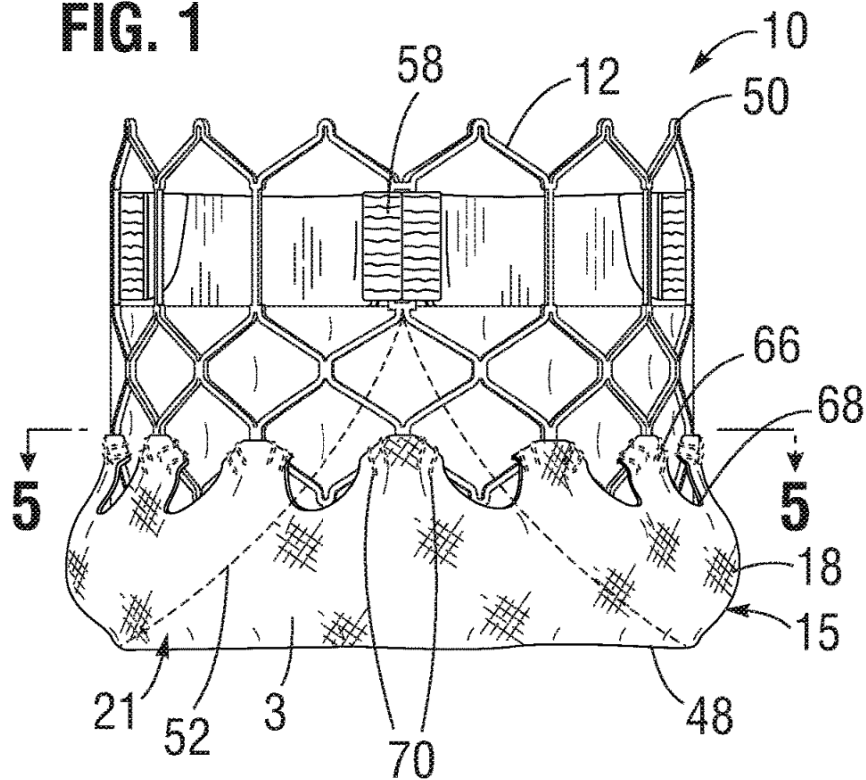
Primary Examiner — Matthew W Schall

(74) *Attorney, Agent, or Firm* — Edwards Lifesciences;
Hans P Smith



Tel HaShomer

**Oracic &
Vascular Center**

FIG. 1**FIG. 2**

Thank You!