

ASPETTI CHIRURGICI NELLE PATOLOGIE VALVOLARI CARDIACHE

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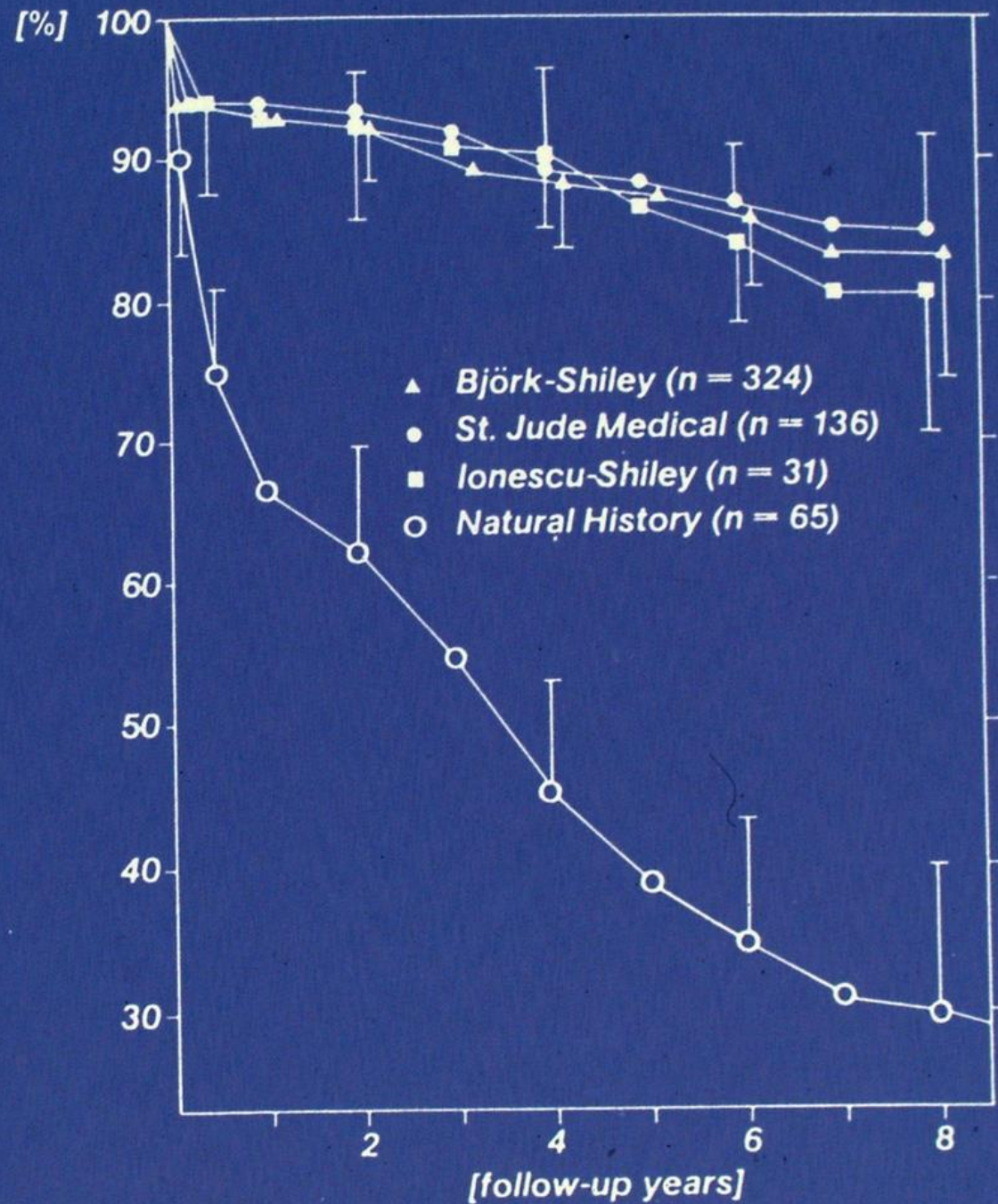


CATTEDRA E DIVISIONE DI CARDIOCHIRURGIA
UNIVERSITA' DEGLI STUDI - BARI

Tab. 2.1 Classificazione funzionale sec. la New York Heart Association (NYHA)

Classe funzionale	Condizioni cliniche (obiettive e soggettive)
I	<i>Non compromesse.</i> Pazienti con cardiopatia senza limitazione dell'attività fisica che, se ordinaria, non provoca alcun disturbo.
II	<i>Leggermente compromesse.</i> Pazienti con cardiopatia e lieve o moderata limitazione dell'attività fisica. L'attività fisica ordinaria crea disturbi.
III	<i>Moderatamente compromesse.</i> Pazienti con cardiopatia e limitazione, da moderata a marcata, dell'attività fisica. Un'attività fisica anche inferiore al normale crea disturbi.
IV	<i>Gravemente compromesse.</i> Pazienti con cardiopatia che non sono capaci di effettuare alcuna attività fisica senza accusare disturbi.

Cumulative survival after mitral valve replacement compared to the natural history of mitral valve disease. (Reproduced with permission from Horstkotte D, Bodnar E: Bileaflet valves. In: Bodnar E, Frater R, eds. Replacement Cardiac Valves. McGraw-Hill, 1991;201-228. Copyright 1991, McGraw-Hill, Inc.)



CHIRURGIA

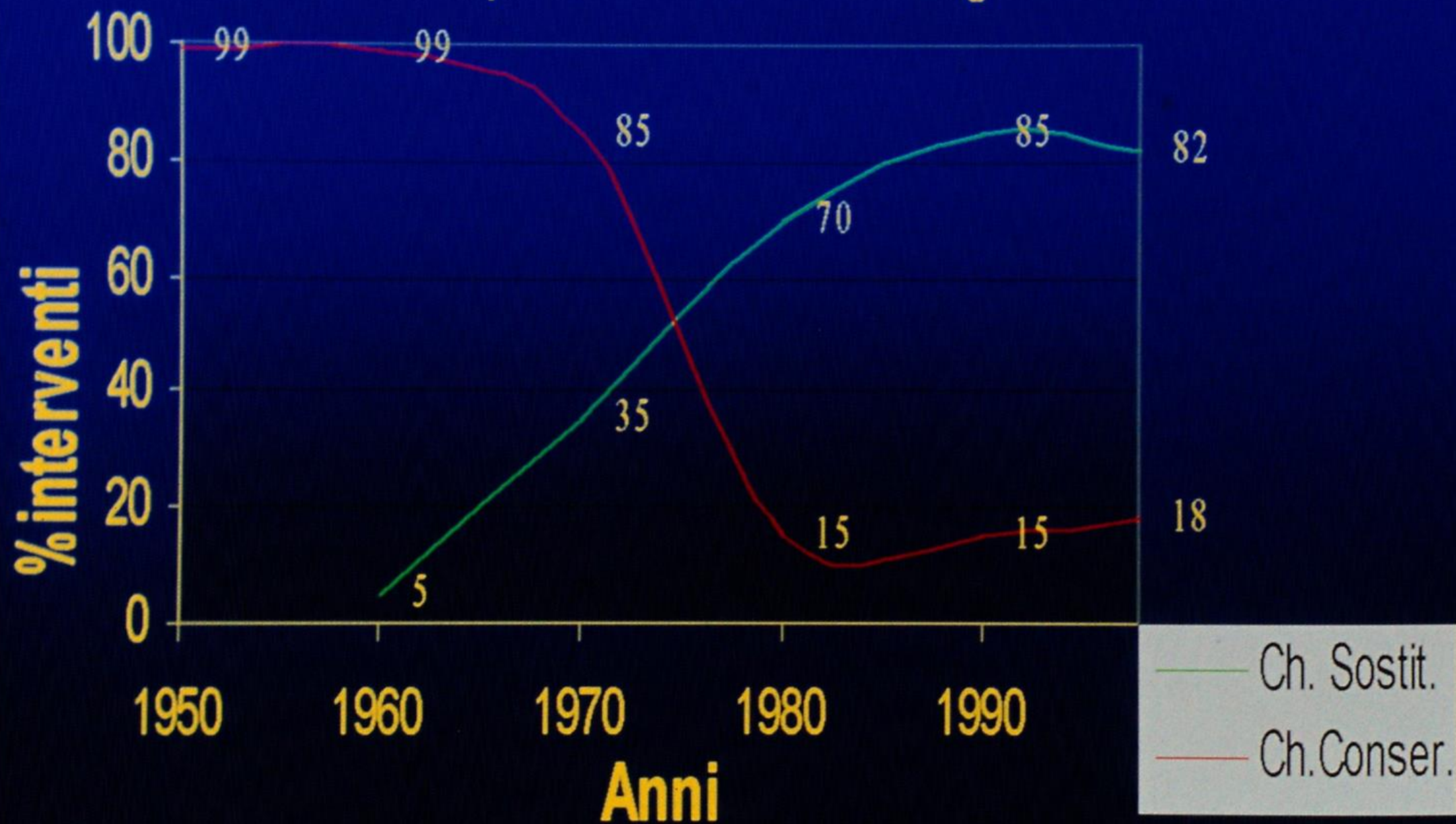
CONSERVATIVA

- Plastiche commissurali
- " anulari
- " dei lembi
- " dell'app. sottovalvolare

SOSTITUTIVA

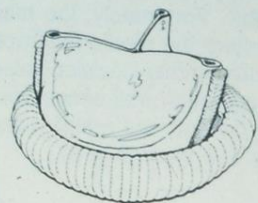
- Protesi meccaniche
- Protesi biologiche

Tipo di correzione chirurgica

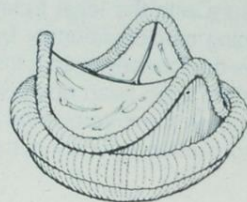


EVOLUZIONE DELLE PROTESI VALVOLARI MECCANICHE

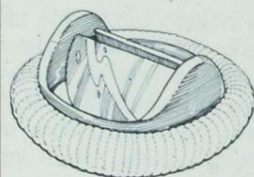
- Anni '60-'70 Protesi a palla (tipo Starr)
- Anni '70-'80 Protesi a disco oscillante (monodisco tipo Bjork)
- Anni '80-'90 Protesi a due emidischi (tipo St.Jude)



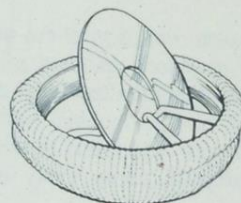
Ionescu-Shiley



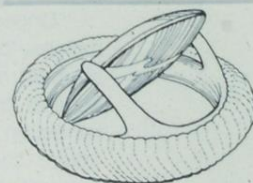
Hancock



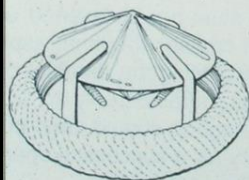
St. Jude



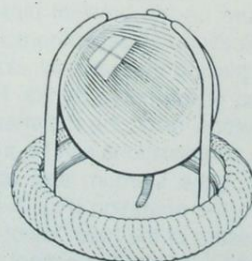
Björk-Shiley



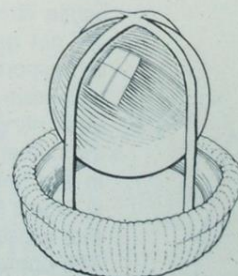
Lillehei-Kaster



Cooley-Cutter



Smeloff



Starr-Edwards

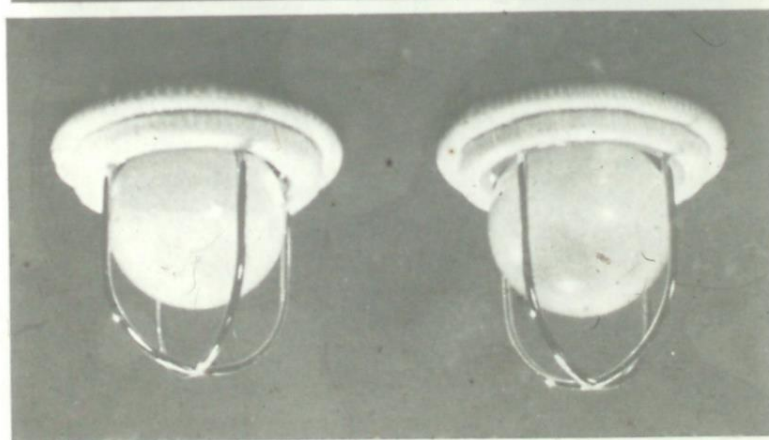
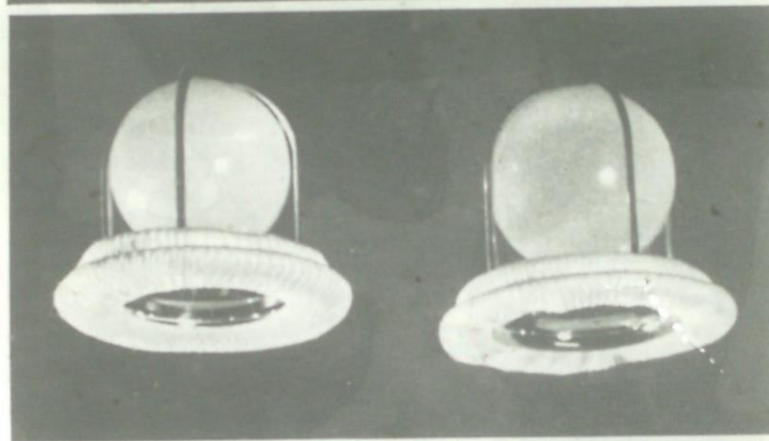
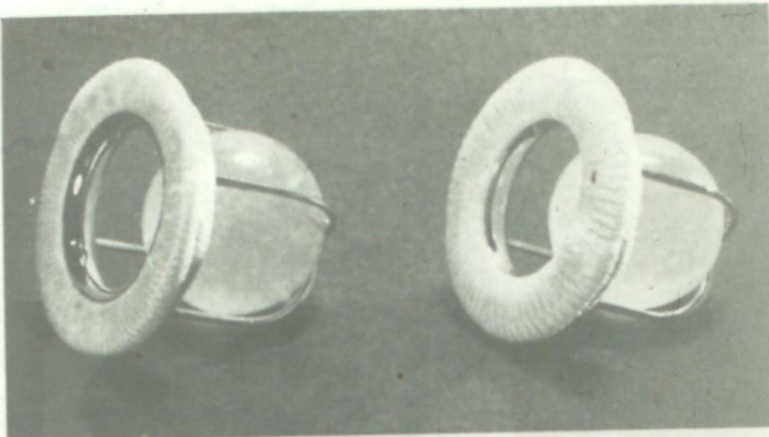
PROTESI MECCANICHE

Ad alto profilo: a sfera

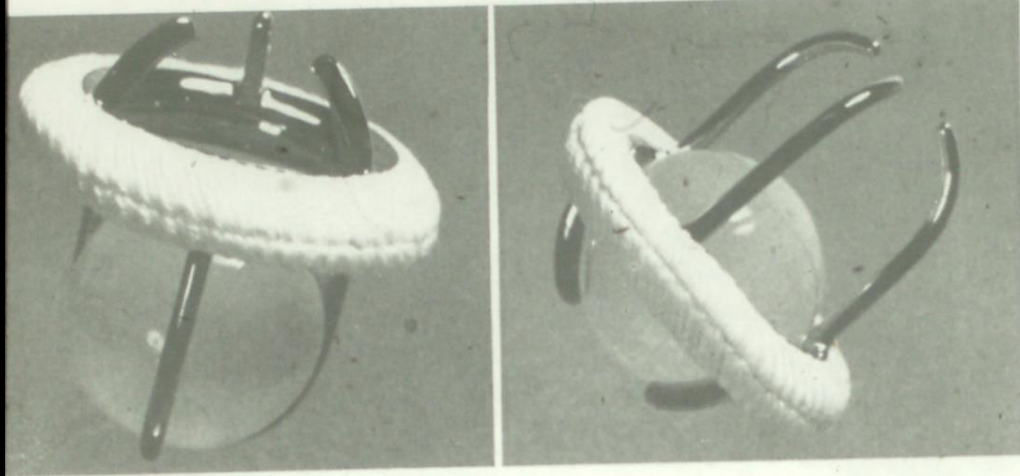
A basso profilo: a disco



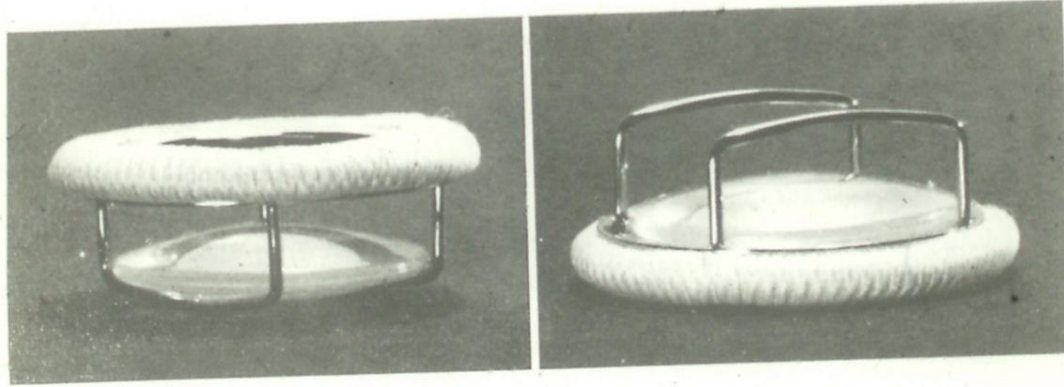
Debaquey-Surgitool Aortic Valve Prosthesis



— Valvola di Starr-Edward: a sinistra il mod. 6000, a destra il mod. 6120.



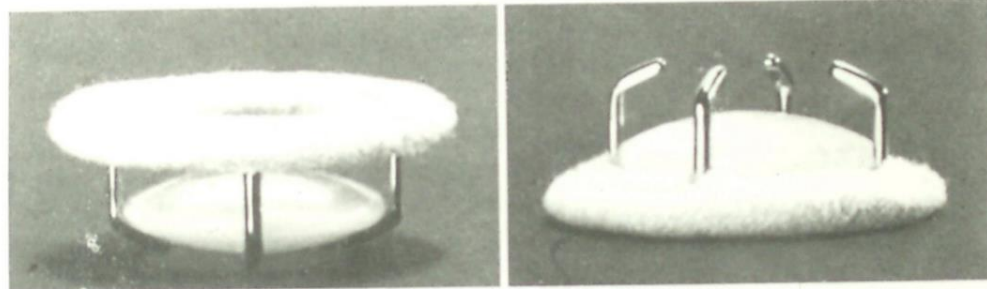
← Valvola di Smeloff-Cutter.



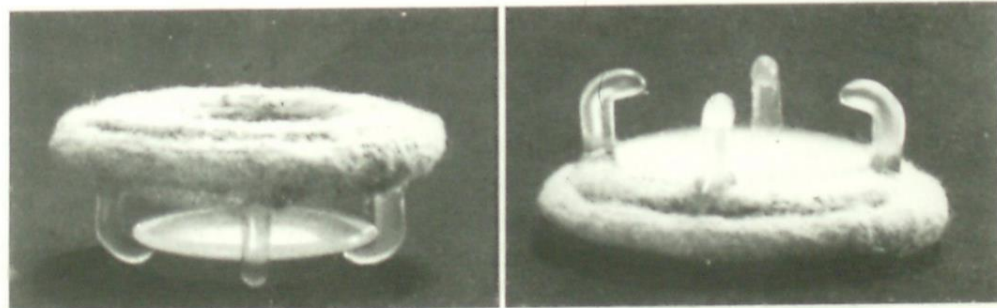
→ Valvola di Kay-Shiley.



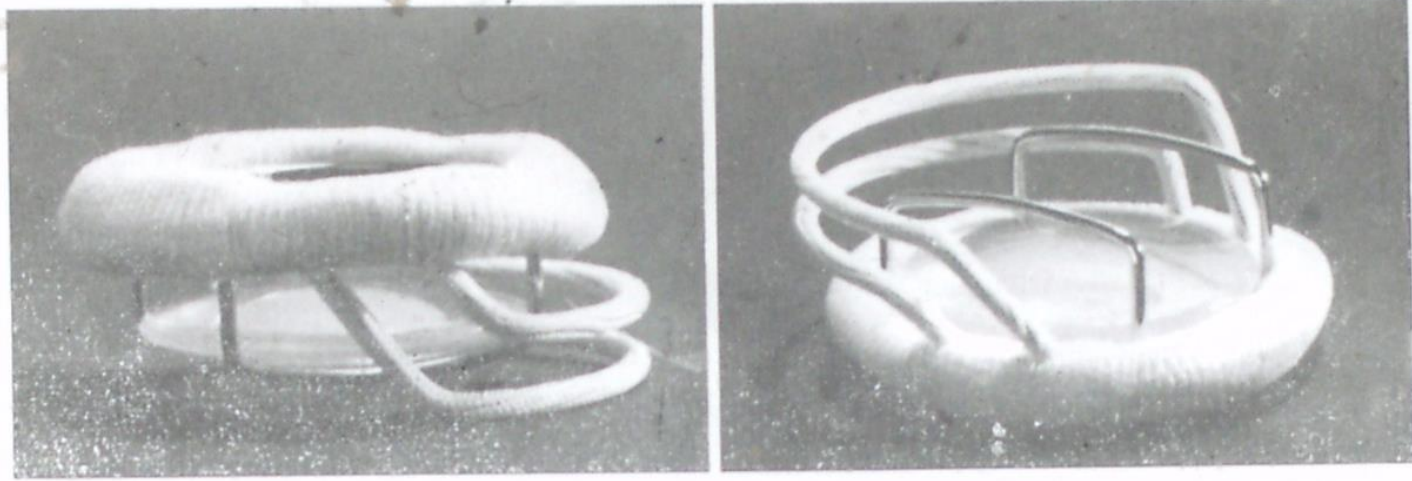
Valvola di Cross-Jones.



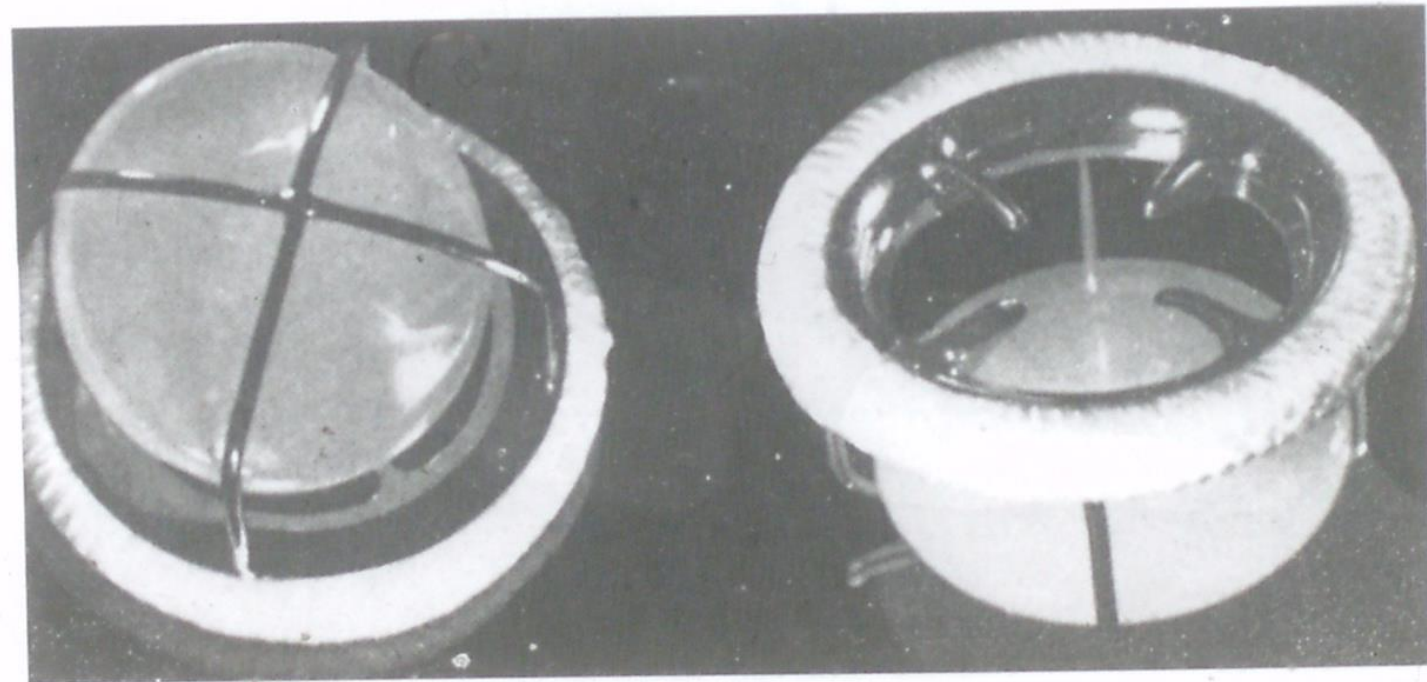
Valvola di Cooley.



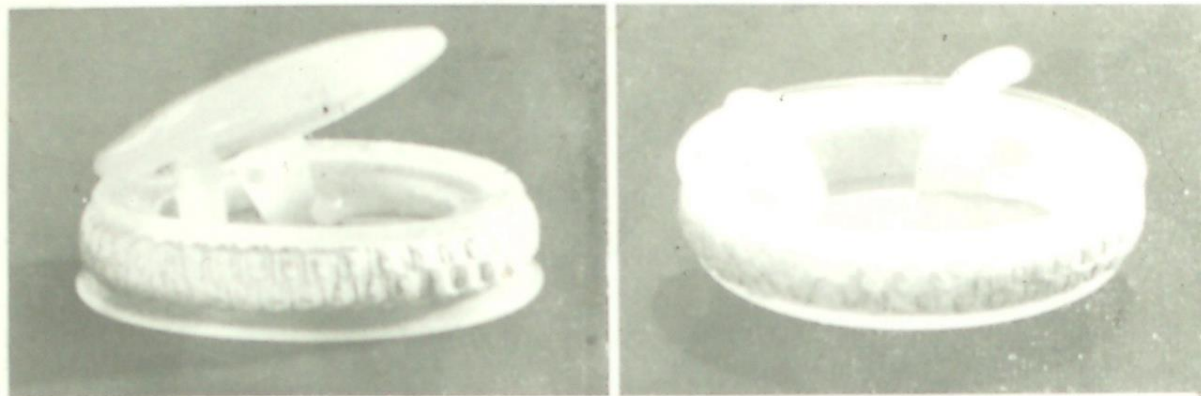
Valvola di Hufnagel.



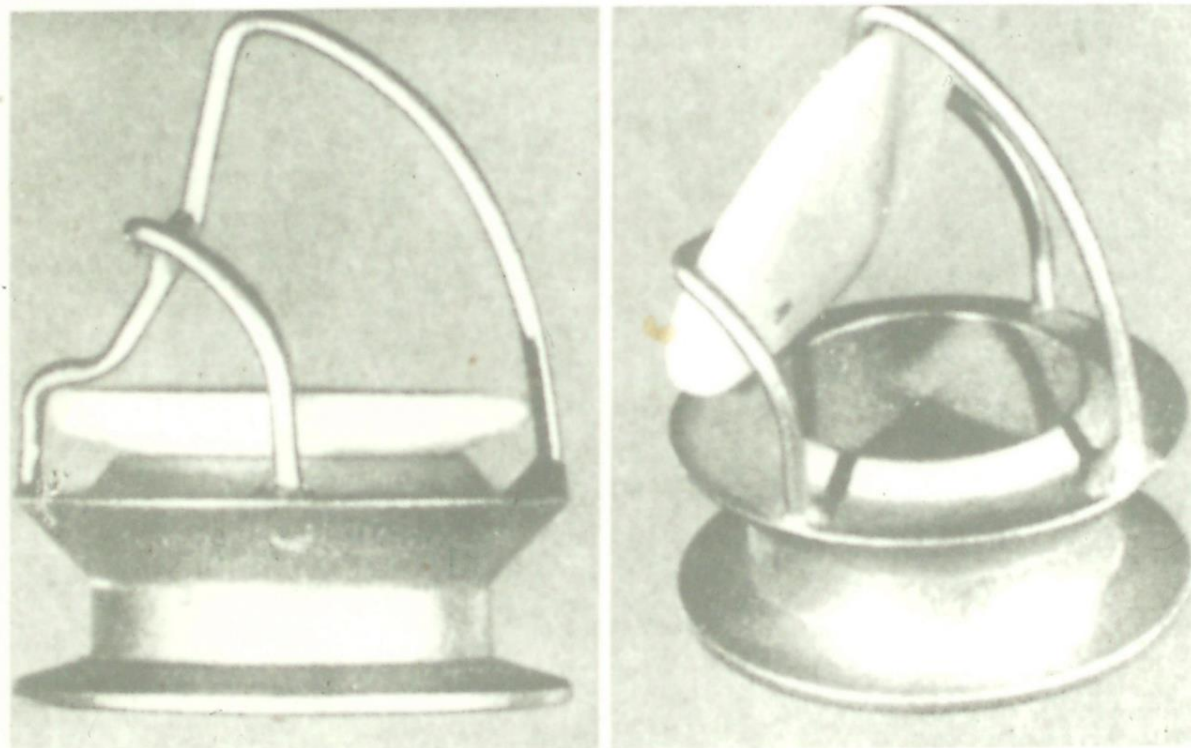
— Nuovo modello sperimentale della valvola di Kay-Shiley.



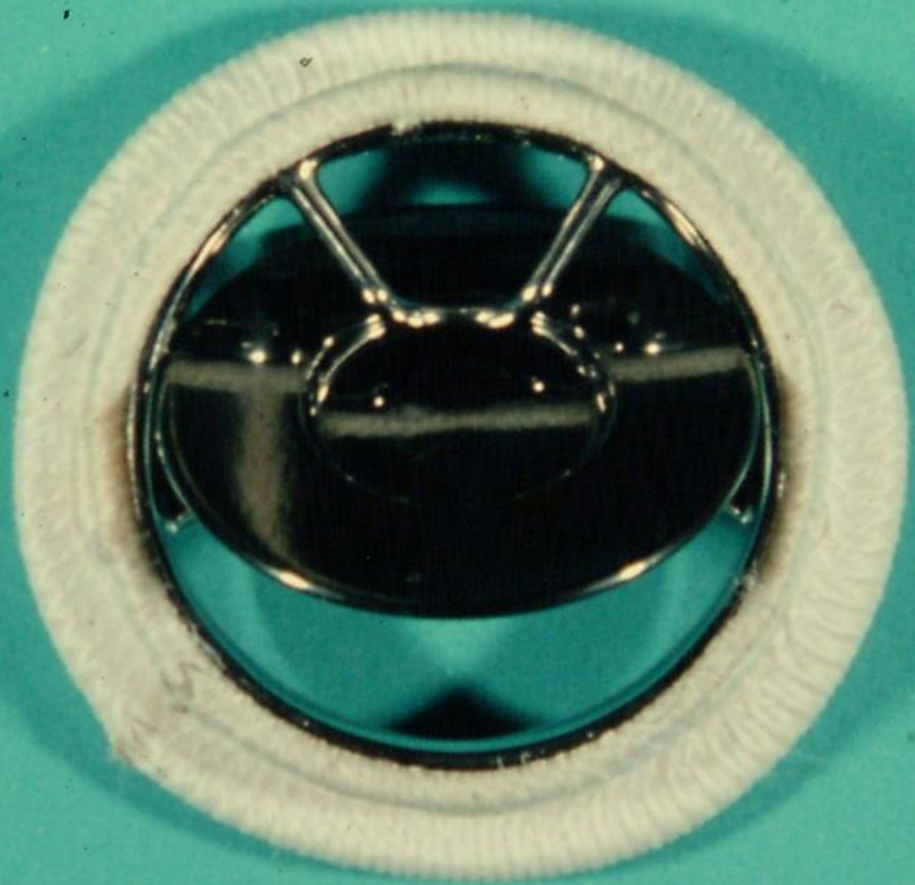
— Valvola di Kay-Suzuki.

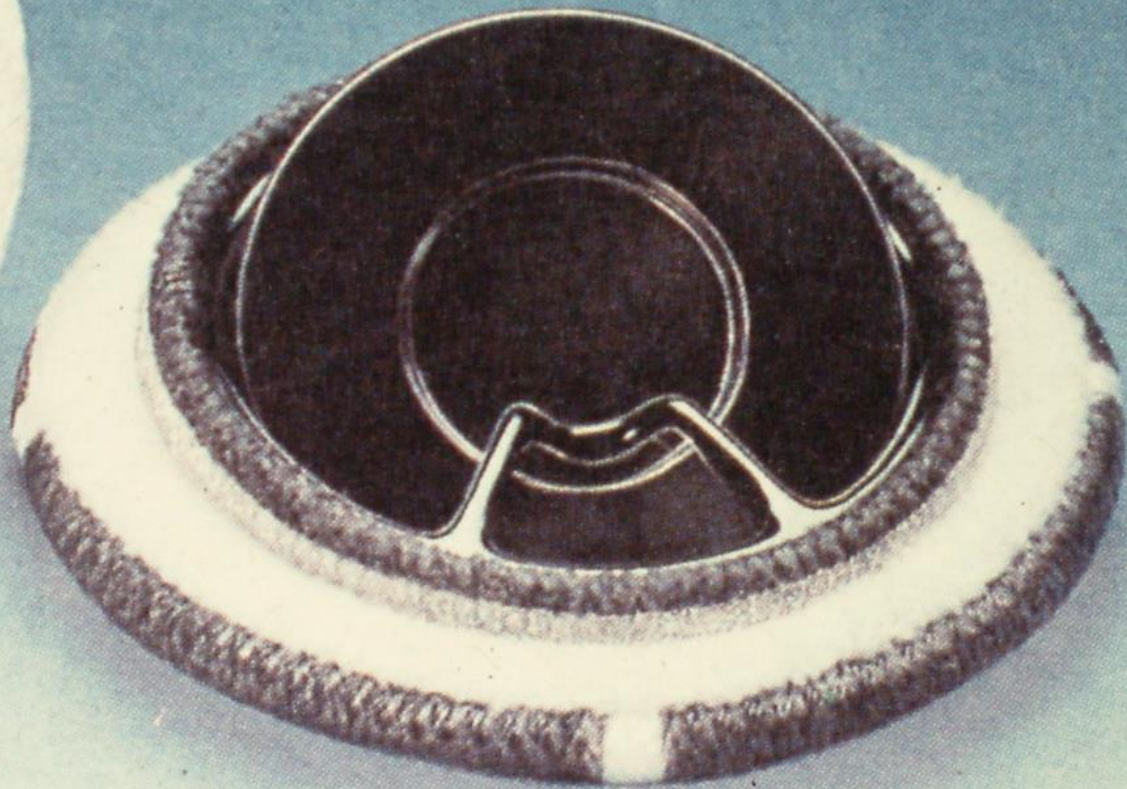
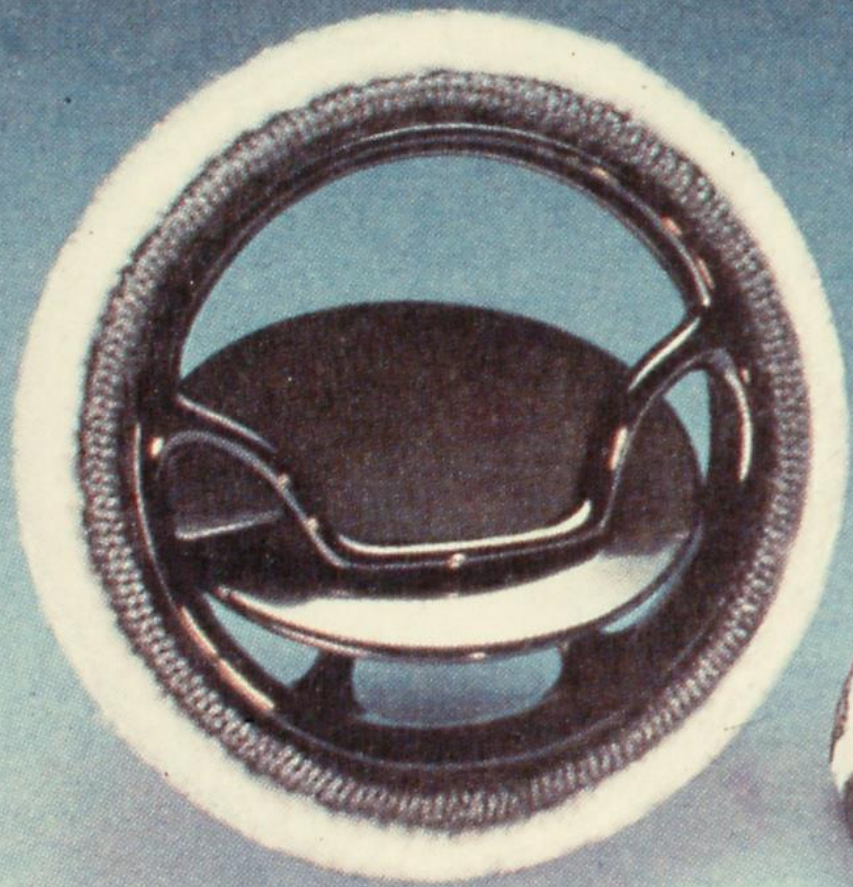


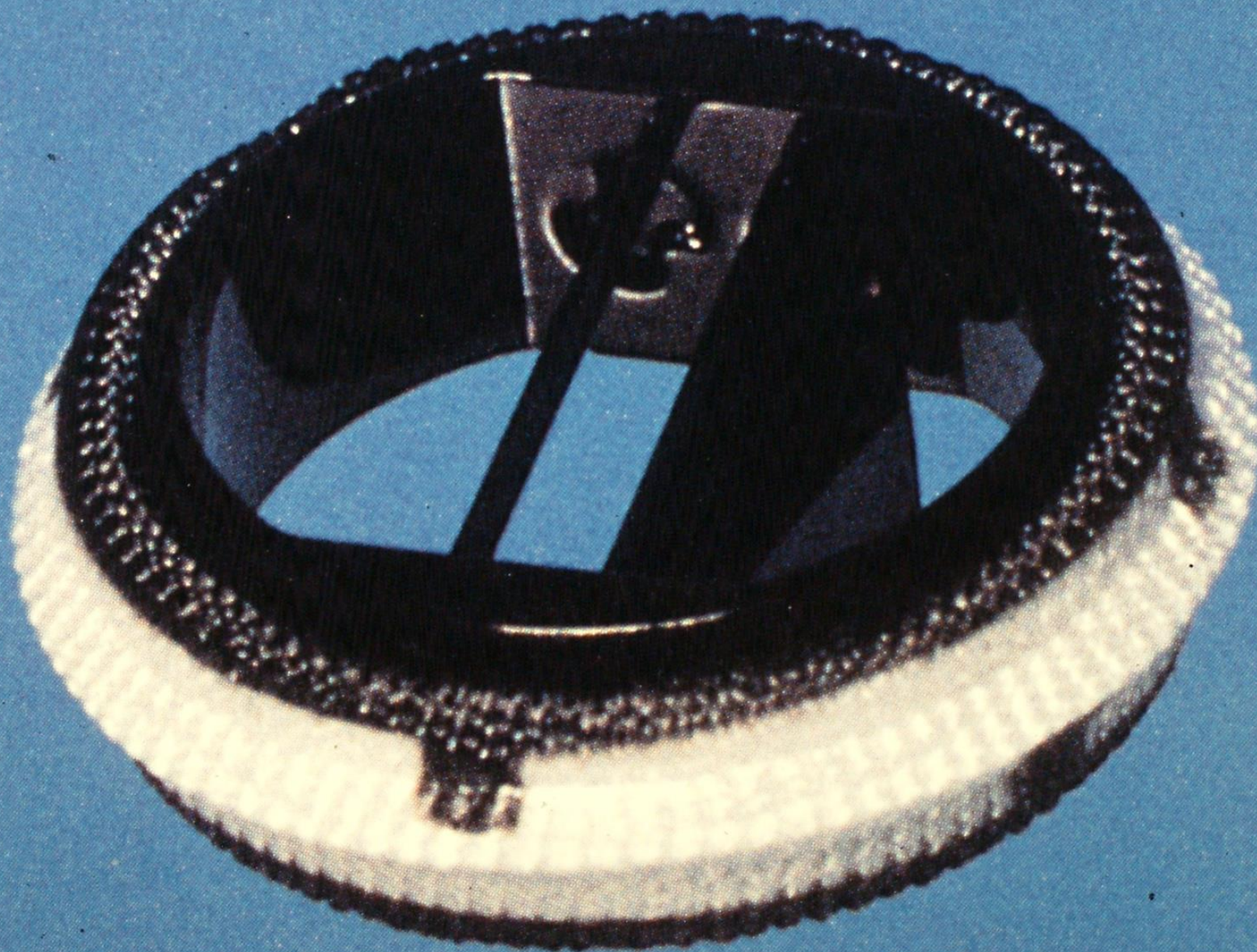
Valvola di Alvarez.

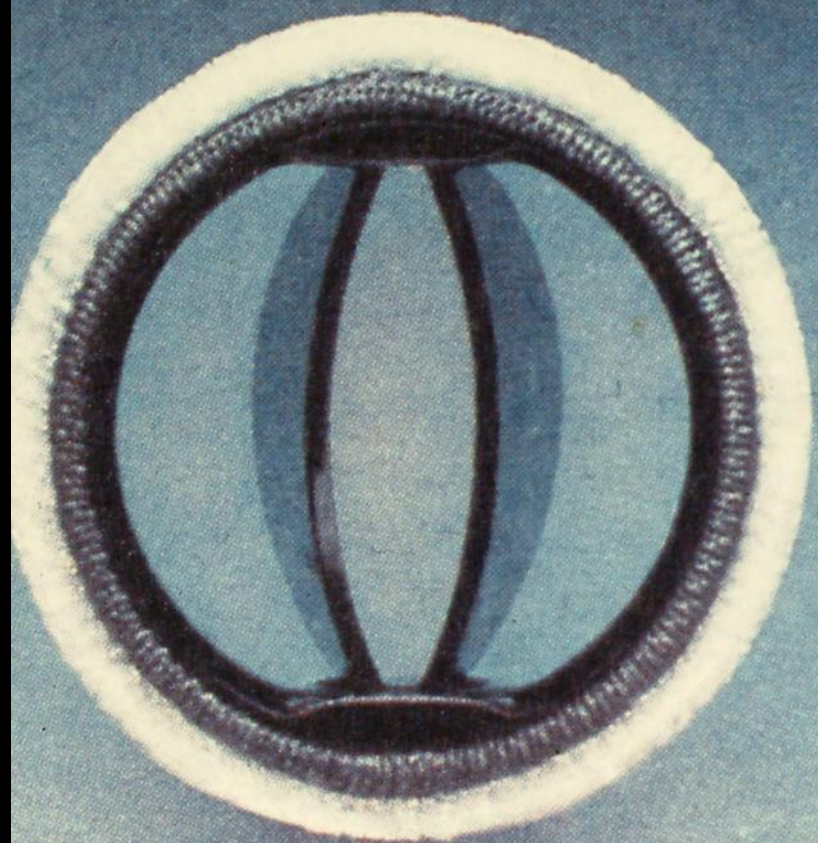


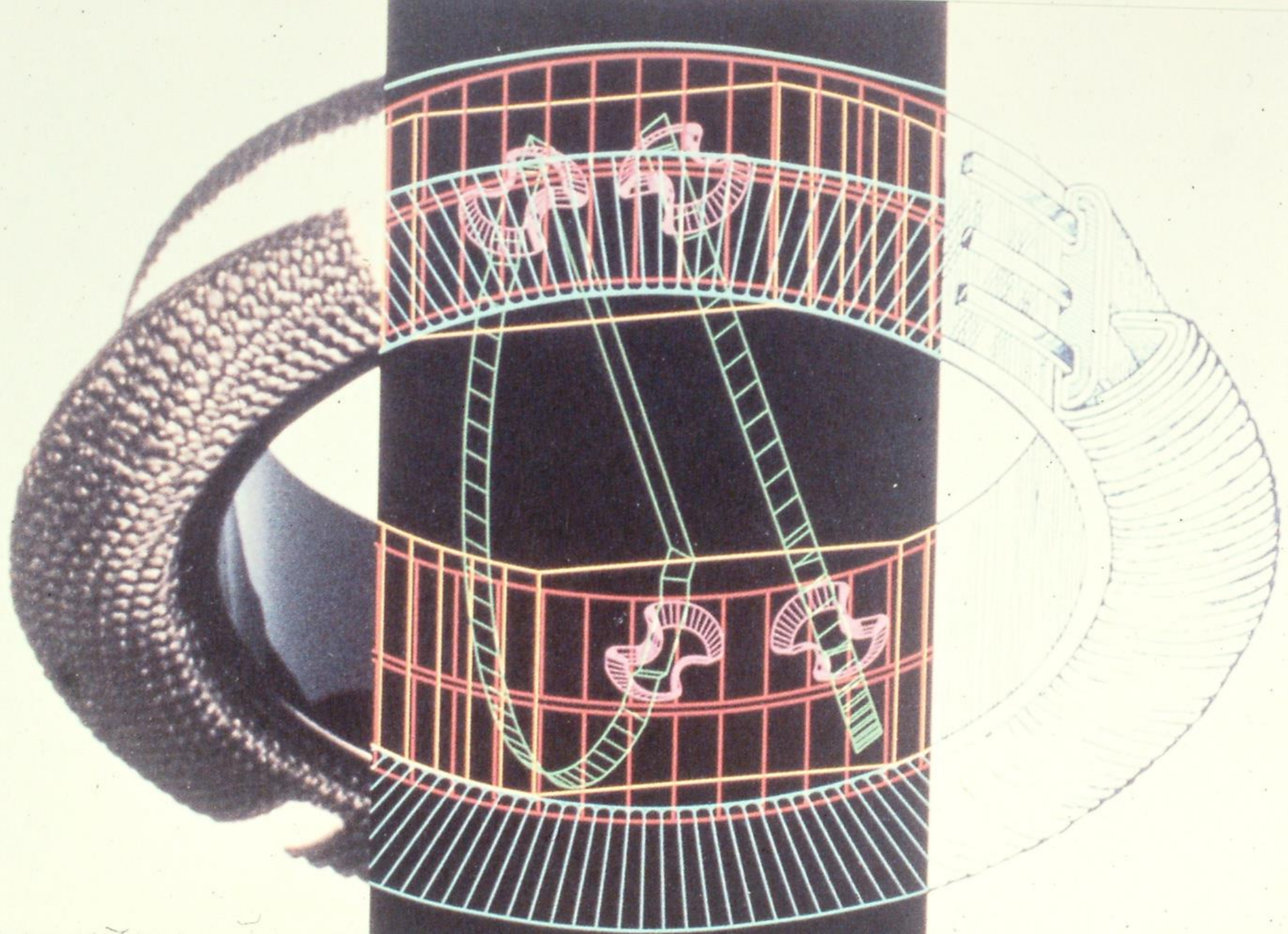
Valvola di Cruz Kaster.

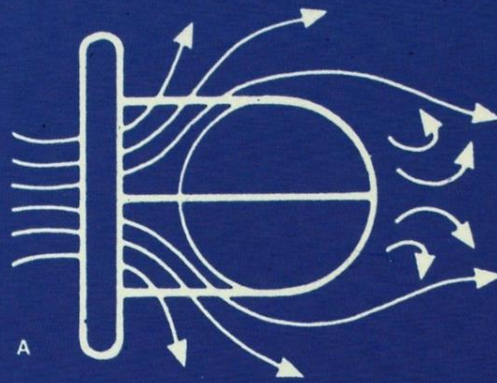




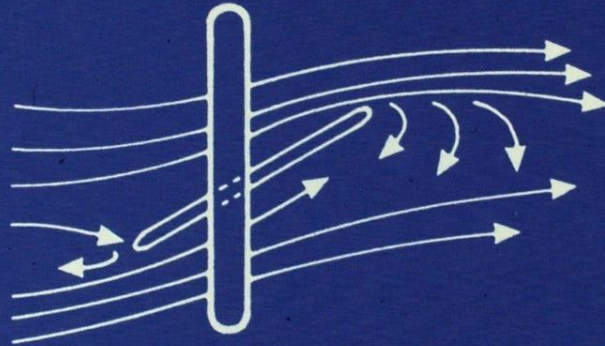




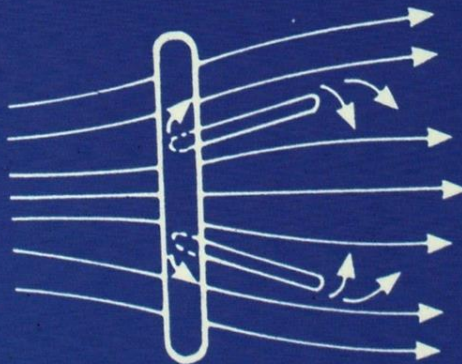




A

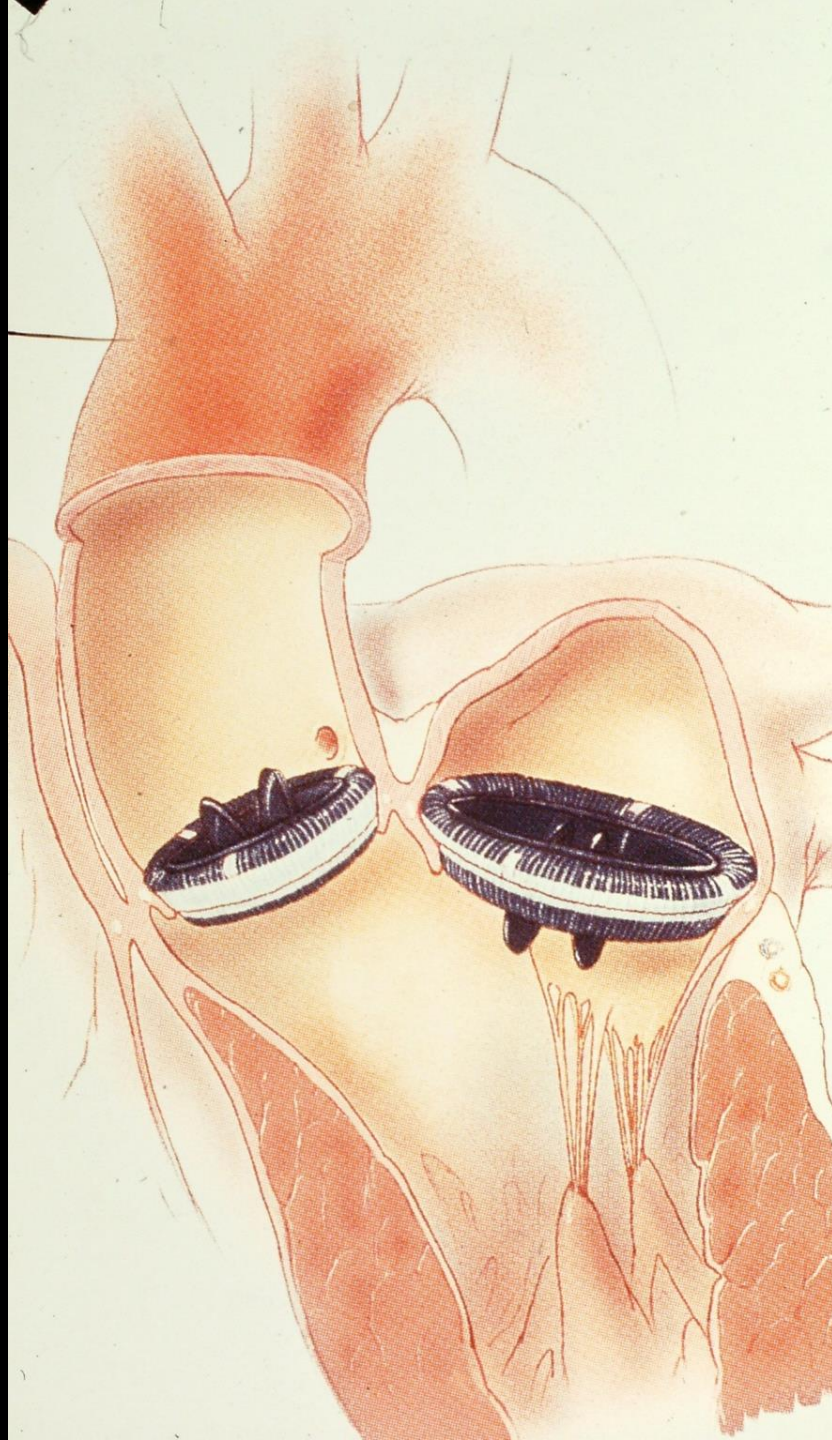


B



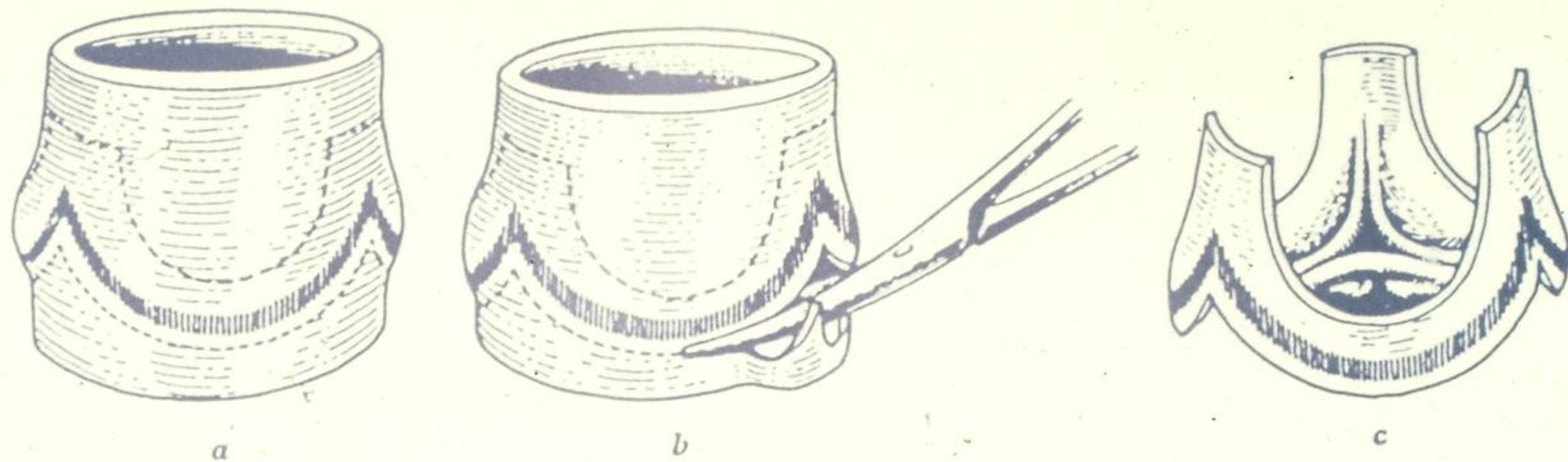
C

Flow characteristics of different mechanical valve designs. A. Ball and cage. B. Tilting disk. C. Bileaflet.

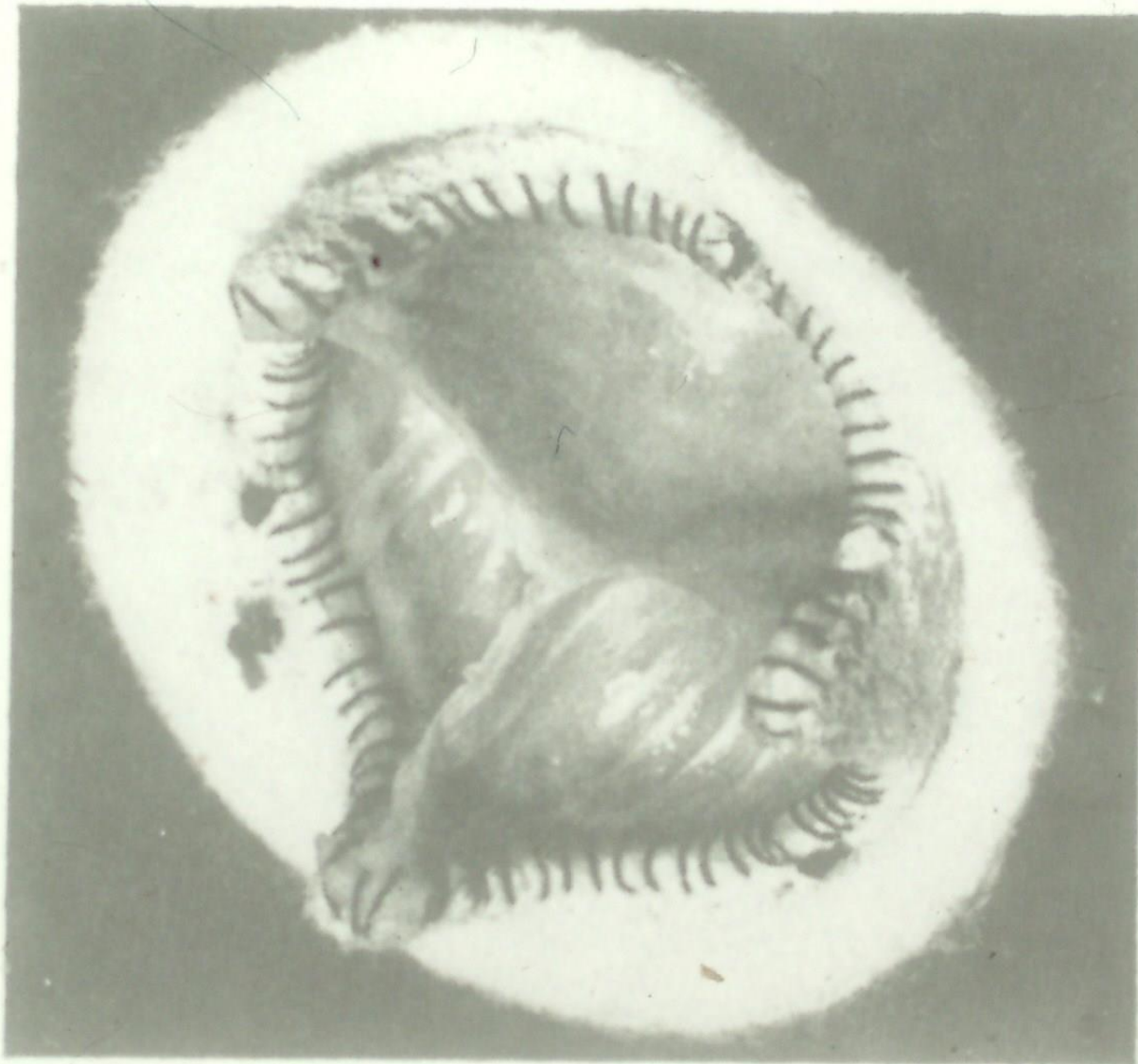


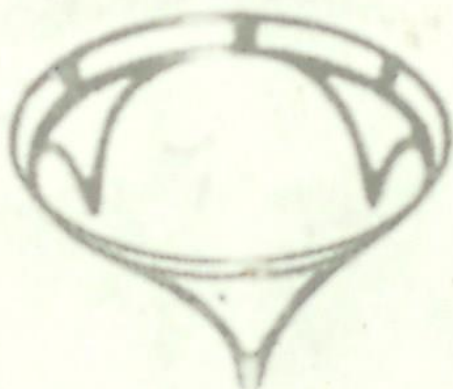
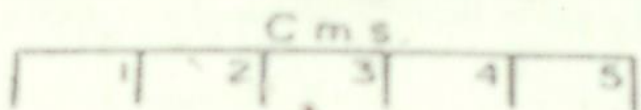
EVOLUZIONE DELLE PROTESI BIOLOGICHE

- inizio anni '60 Homograft aortico (D. Ross)
- fine anni '60 Autograft polmonare (D. Ross)
- inizio anni '70 Valvole in dura madre (Zerbini)
Xenograft porcino (Hanckoch)
- fine anni '70 Xenograft in pericardio bovino (Ionescu)
- anni '90 Stentless



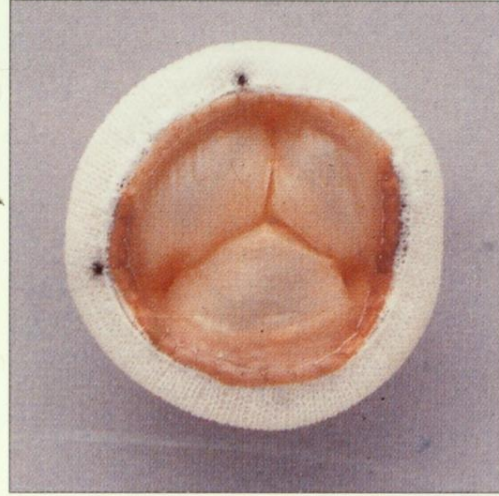
Preparazione di omoinnesto valvolare aortico da cadavere.







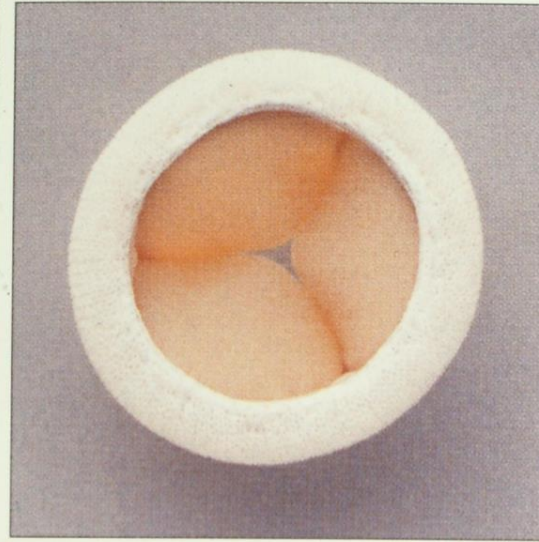
Stented Valve A*



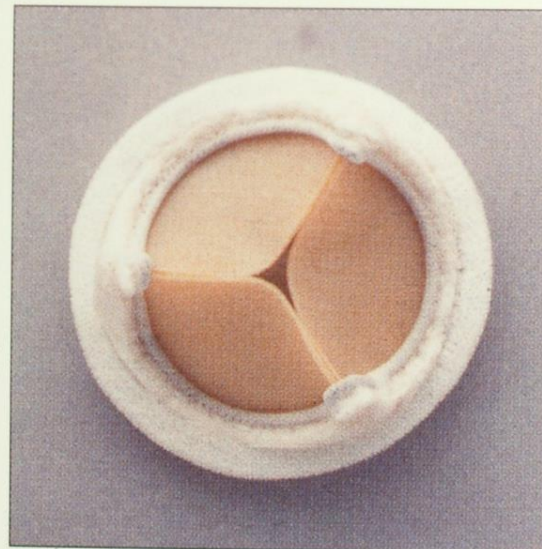
Stented Valve A*

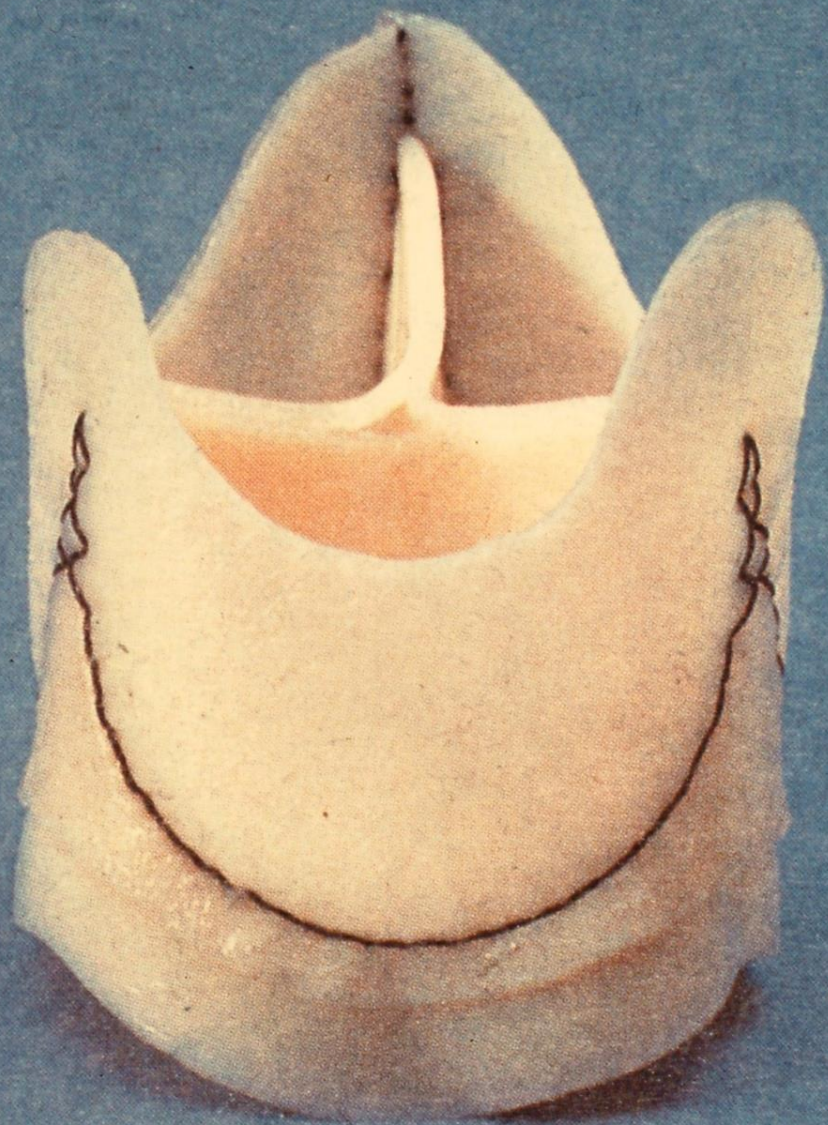


Stented Valve B**



Stented Valve B**





VANTAGGI

SVANTAGGI

Protesi meccaniche

**affidabilità dei
materiali nel tempo**

**necessità di
anticoagulazione**

Protesi biologiche

atrombogenicità

deterioramento

LIVELLI ANTICOAGULAZIONE ORALE

INR

Protesi valvolari meccaniche

2.5 - 3.5

FARMACI CHE INTERFERISCONO CON GLI ANTICOAGULANTI ORALI

Farmaci che potenziano l'effetto anticoagulante

- *Allopurinolo*
- *Amiodarone*
- *Chinidina*
- *Cimetidina*
- *Cloramfenicolo*
- *Disulfiram*
- *Eritromicina*
- *Fenilbutazone*
- *Fibrati*
- *Ketoconazolo*
- *Ketoprofene*
- *Metronidazolo*
- *Miconazolo*
- *Omeprazolo*
- *Tamossifene*
- *Trimetoprim-sulfametossazolo*

Farmaci che inibiscono l'effetto anticoagulante

- *Aloperidolo*
- *Barbiturici*
- *Carbamazepina*
- *Clordiazepossido*
- *Clortalidone*
- *Colestiramina*
- *Glutetimide*
- *Griseofulvina*
- *Nafcillina*
- *Rifampicina*
- *Spiroinolattone*
- *Sucralfato*

ANTICOAGULAZIONE

**Protesi valvolari meccaniche
III generazione**

**Warfarin Sodico
(INR 2.5 - 3.5)**

Protesi valvolari biologiche

**Nessuna anticoagulazione né
antiaggregazione.
Casi a rischio: anticoagulazione
standard.**

Ogni scelta anticoagulante è mirata e personalizzata.

- sede valvolare**
- anatomia**
- impiego altro materiale protesico**

ATTENERSI AI PROFILI TERAPEUTICI PRESCRITTI DI INR

COMPLICANZE NEI PORTATORI DI PROTESI

- Emorragie da anticoagulanti (protesi meccanica)

- Deterioramento (bioprotesi)

- Malfunzione per :

- trombo

- panno-trombo 

- panno

stenosi o

insufficienza o

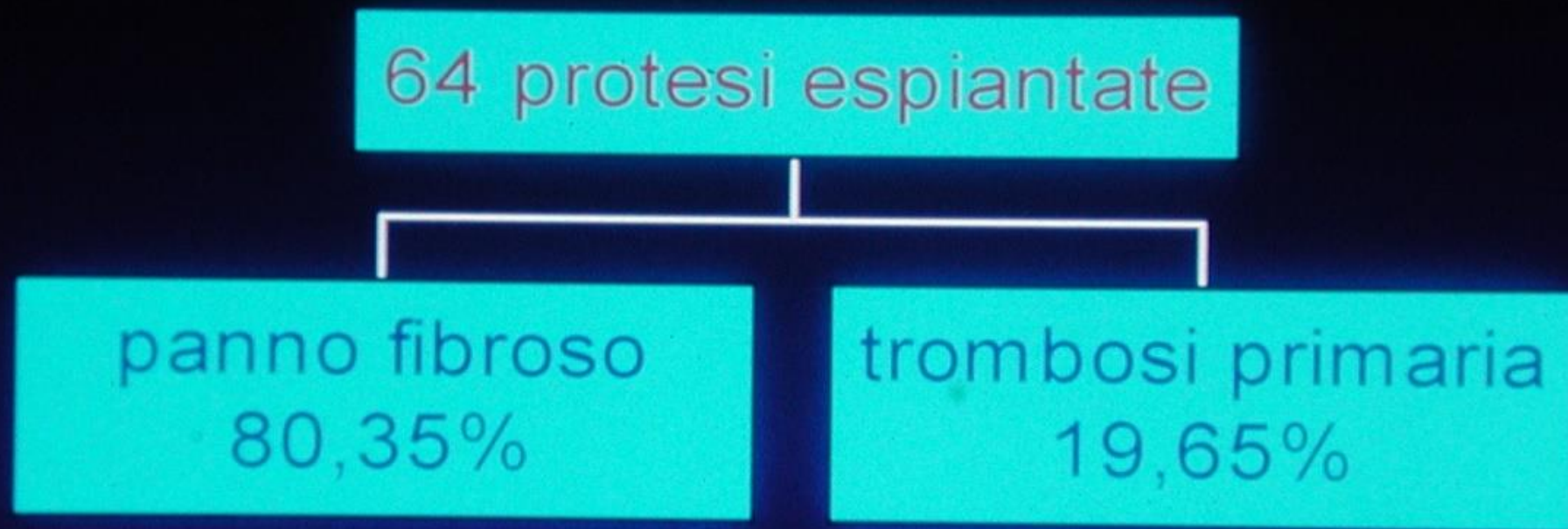
steno-insuffic.

- Infezione protesica

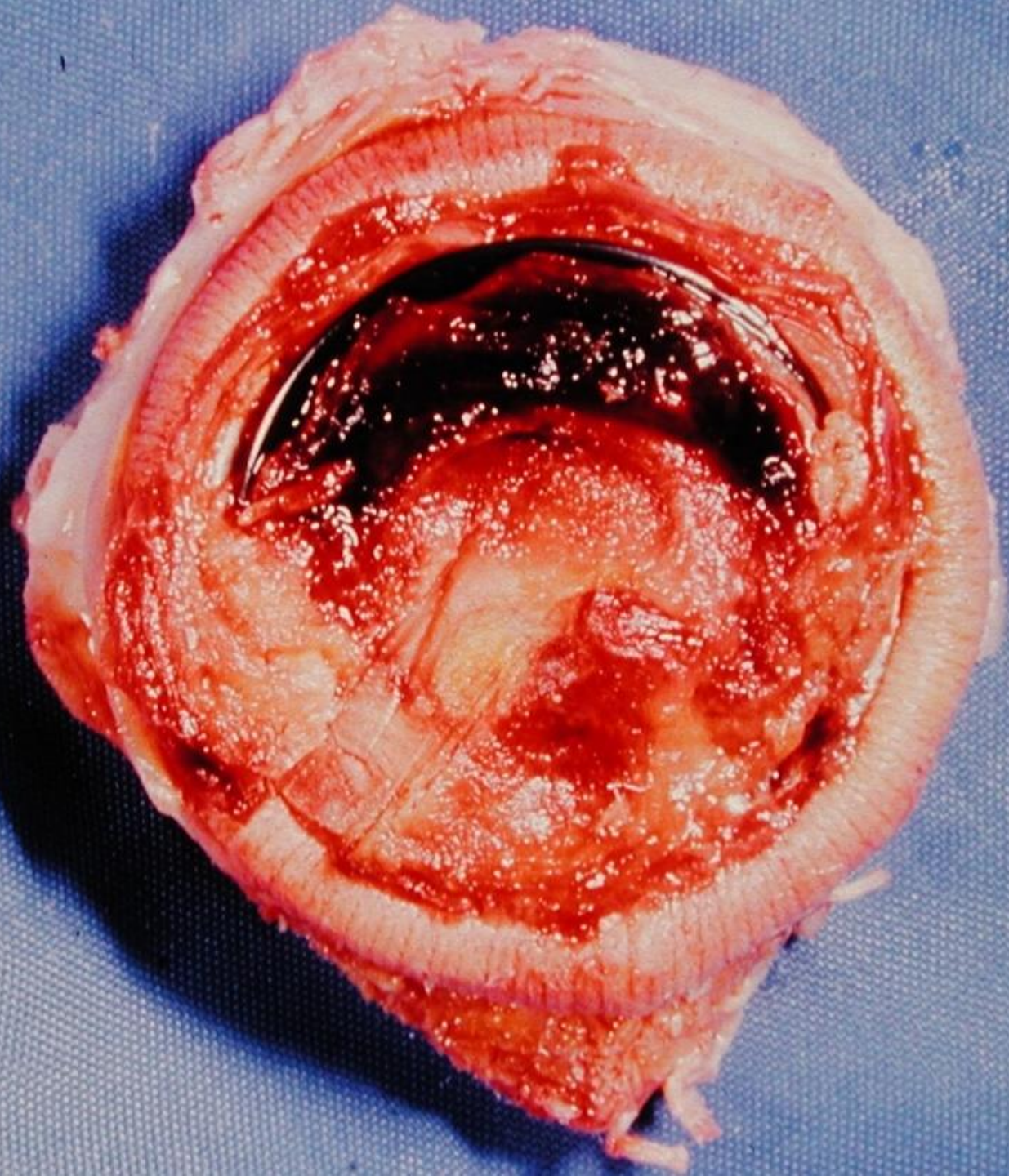
 vegetazioni

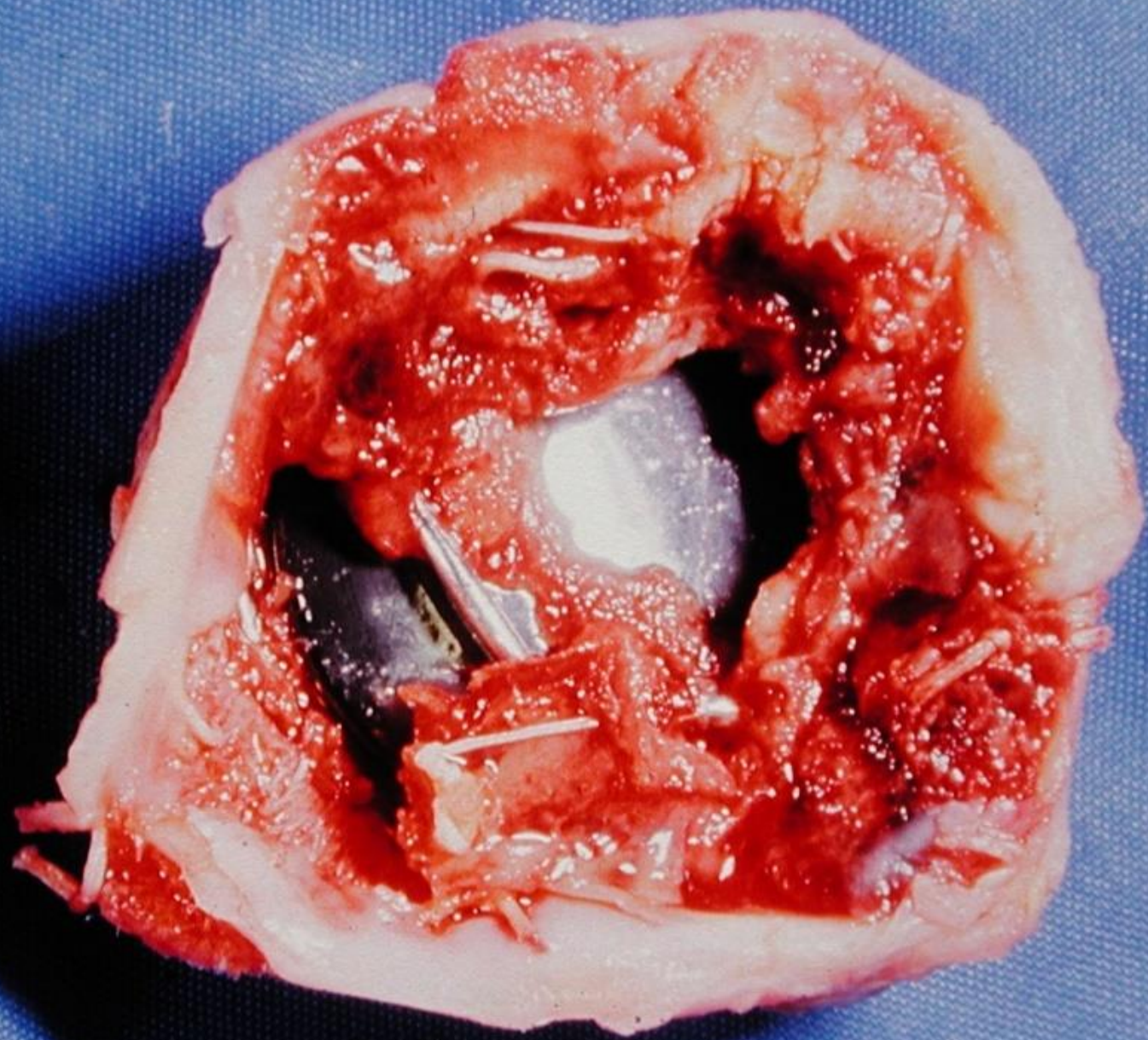
 distacco

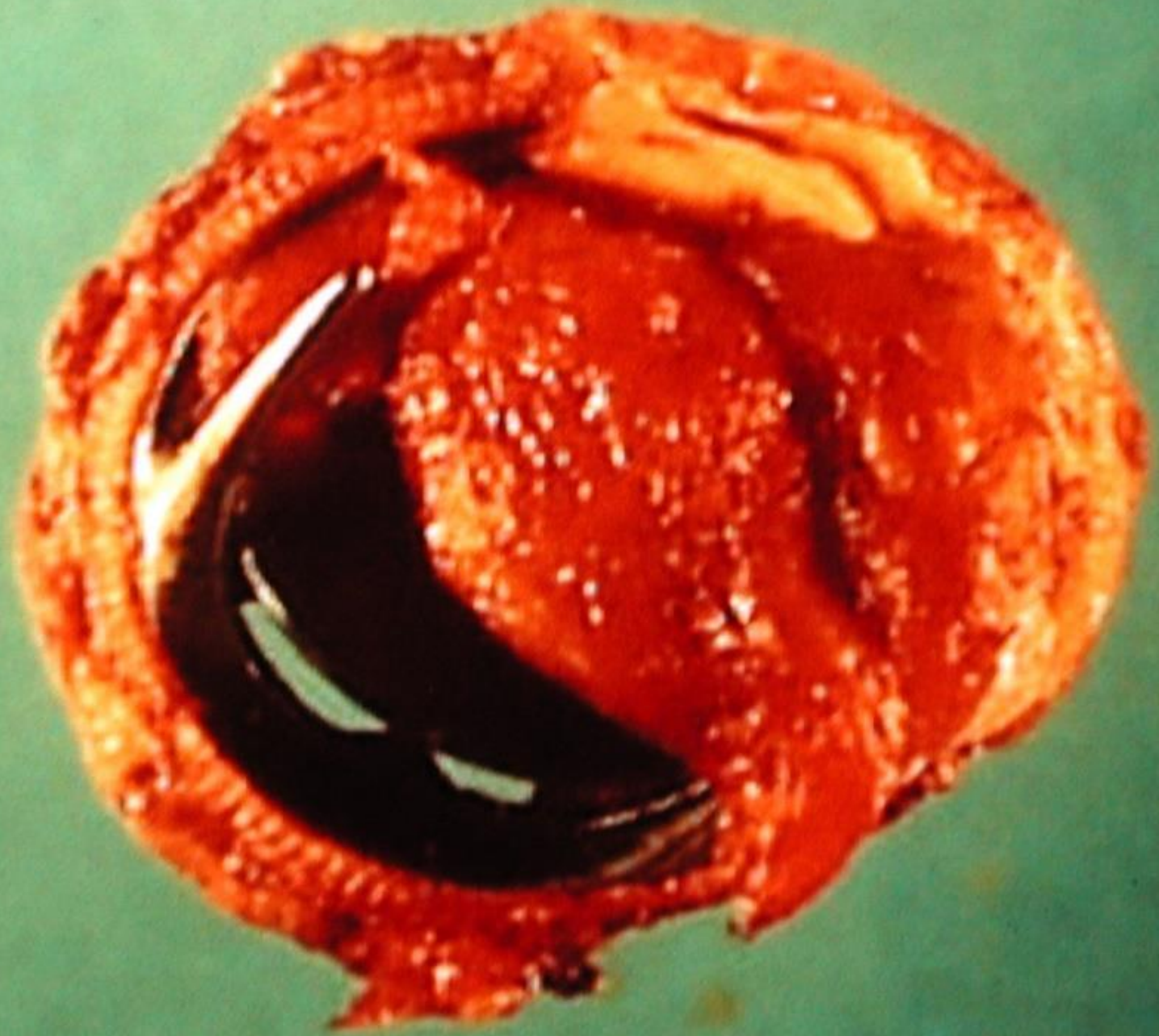
BLOCCO DI PROTESI : ISTOLOGIA

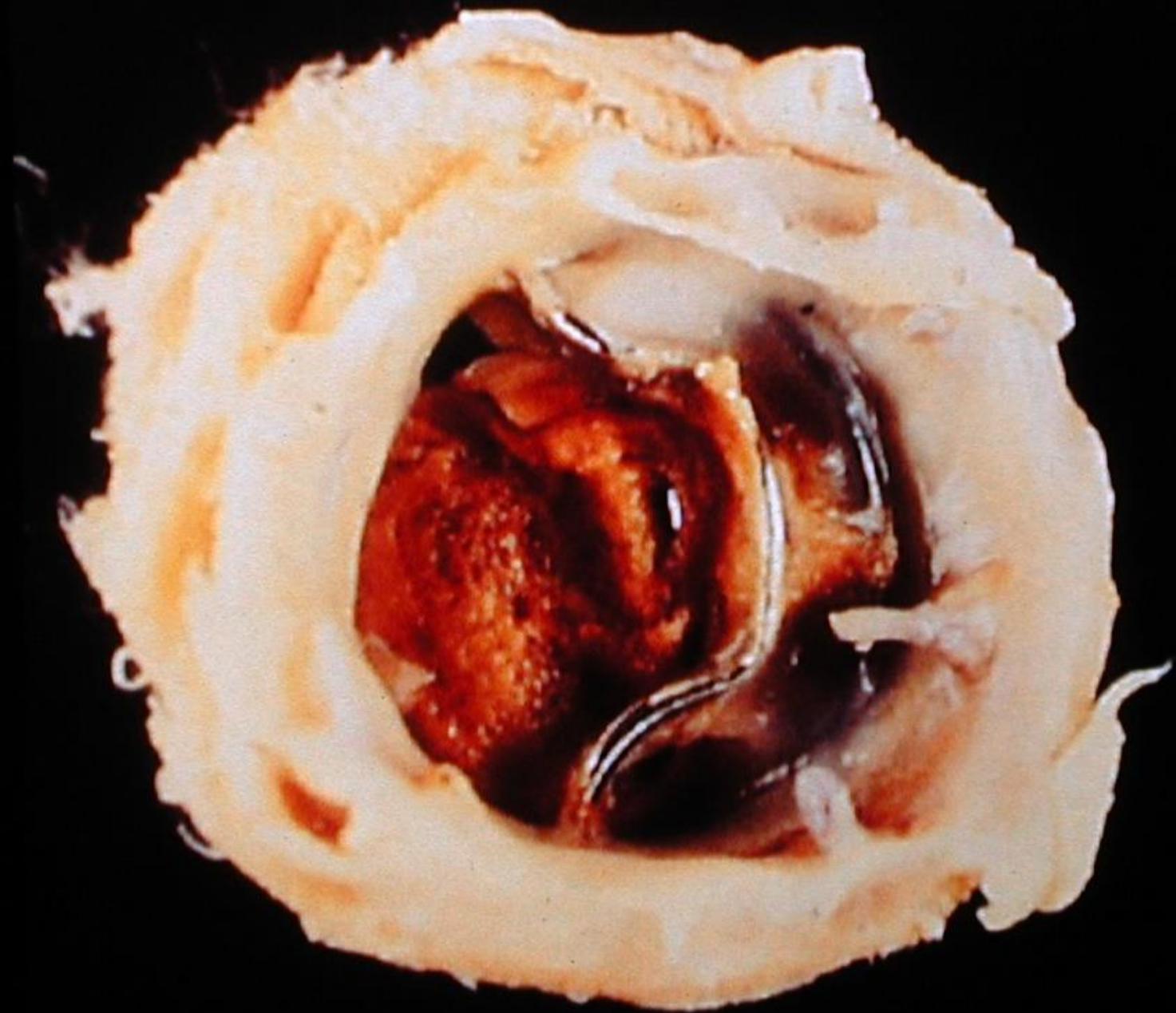


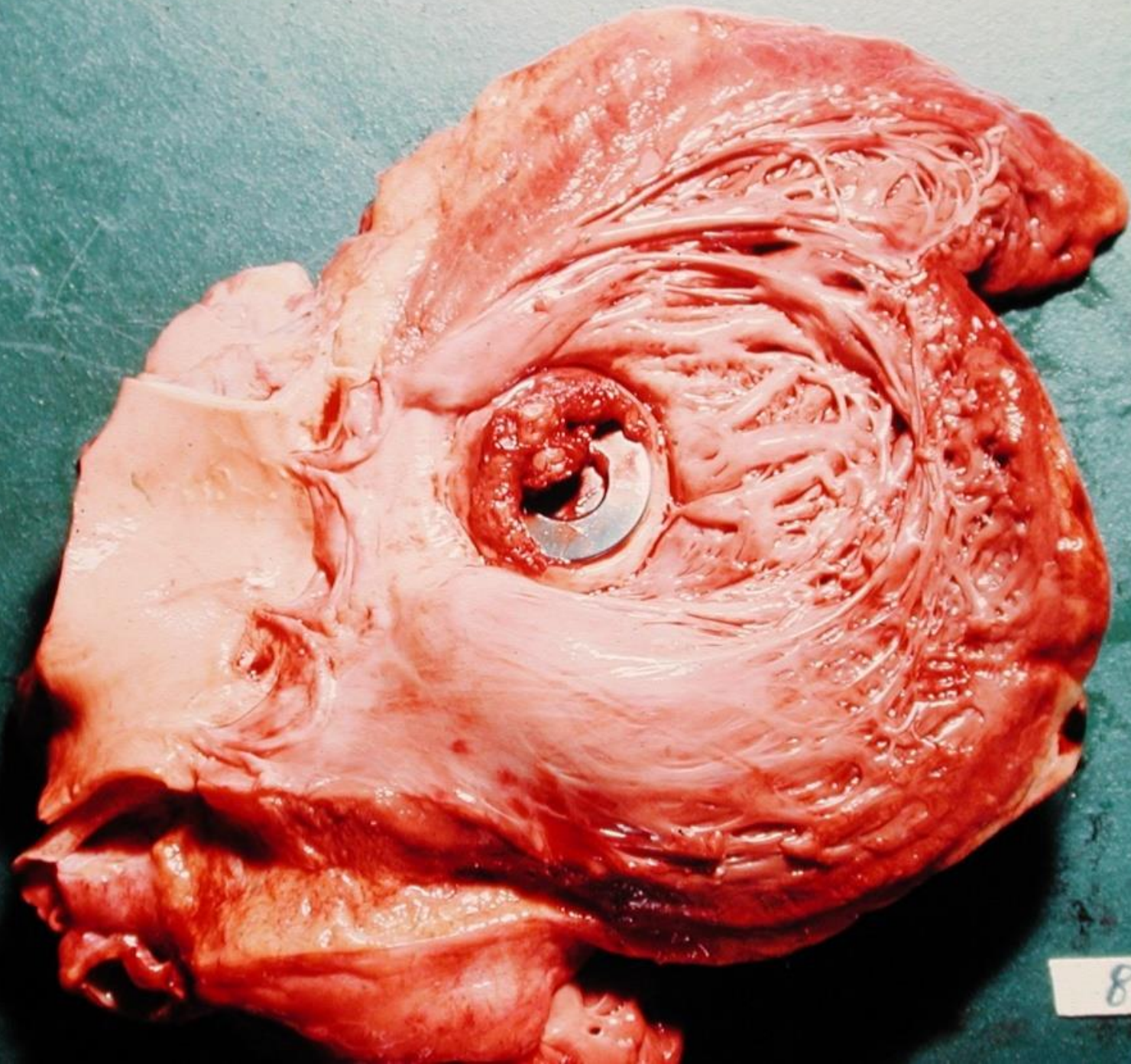






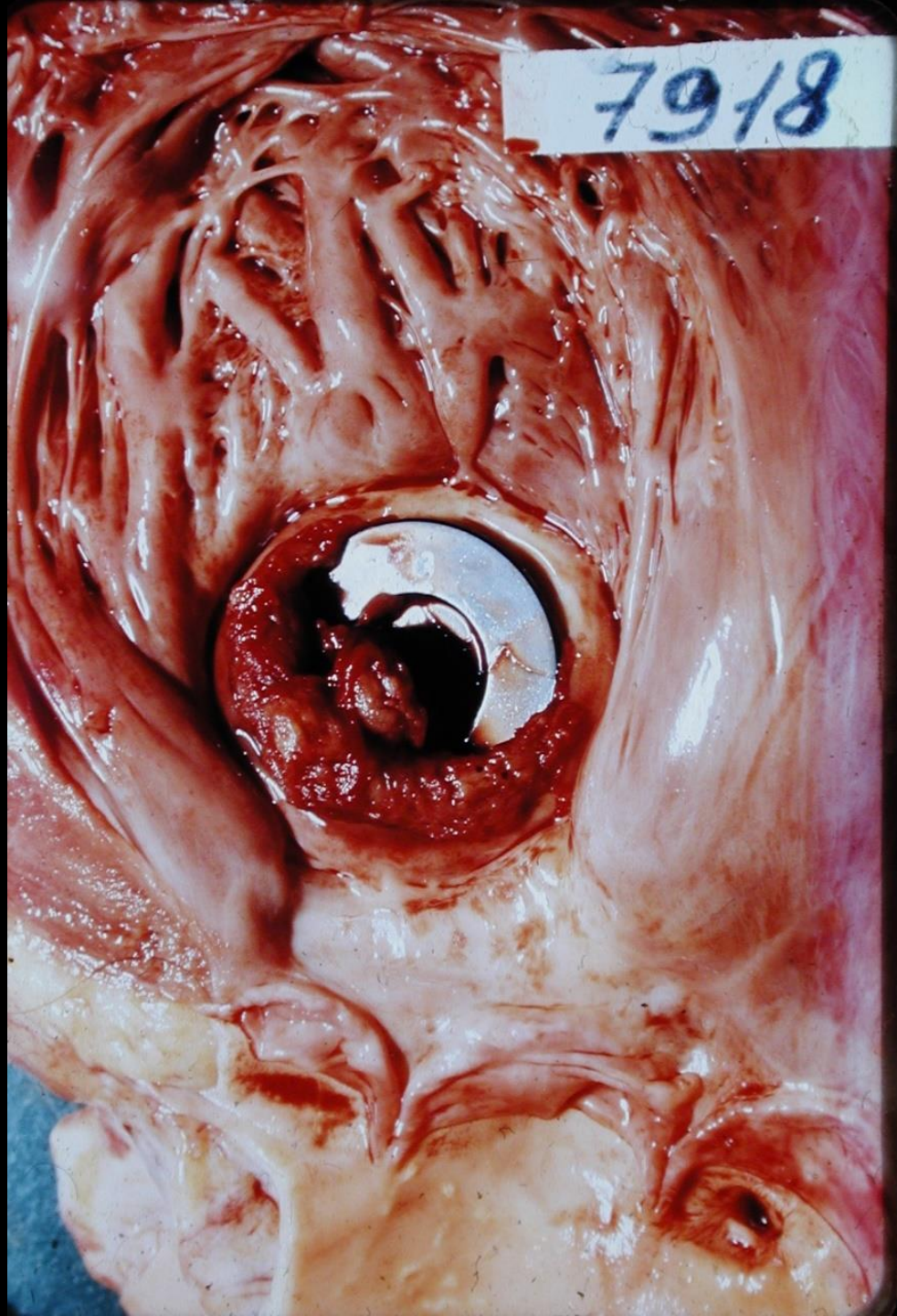






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PROSPETTIVE

CHIRURGIA ENDOVASCOLARE

PERFEZIONAMENTO PROTESI MECCANICHE

atrombogenicità

proprietà antibatteriche

affidabilità meccanica

performances emodinamiche

PERFEZIONAMENTO BIOPROTESI

miglioramento biocompatibilità e durata xenografts

mediante colonizzazione con cellule endoteliali e

fibroblasti umani

CHIRURGIA ENDOVASCOLARE

VALVULOPLASTICA

mitralica

aortica

polmonare

- **Indicazione selettiva e ben delimitata**
- **“Mani molto esperte”**
- **Possibile necessità di chirurgia successiva**