

The Shelhigh Bio Conduit for Bentall Procedure: early and mid-term results

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CASA DI CURA
Villa Torri



The Shilhigh BioConduit

Stentless aortic Valve Conduit

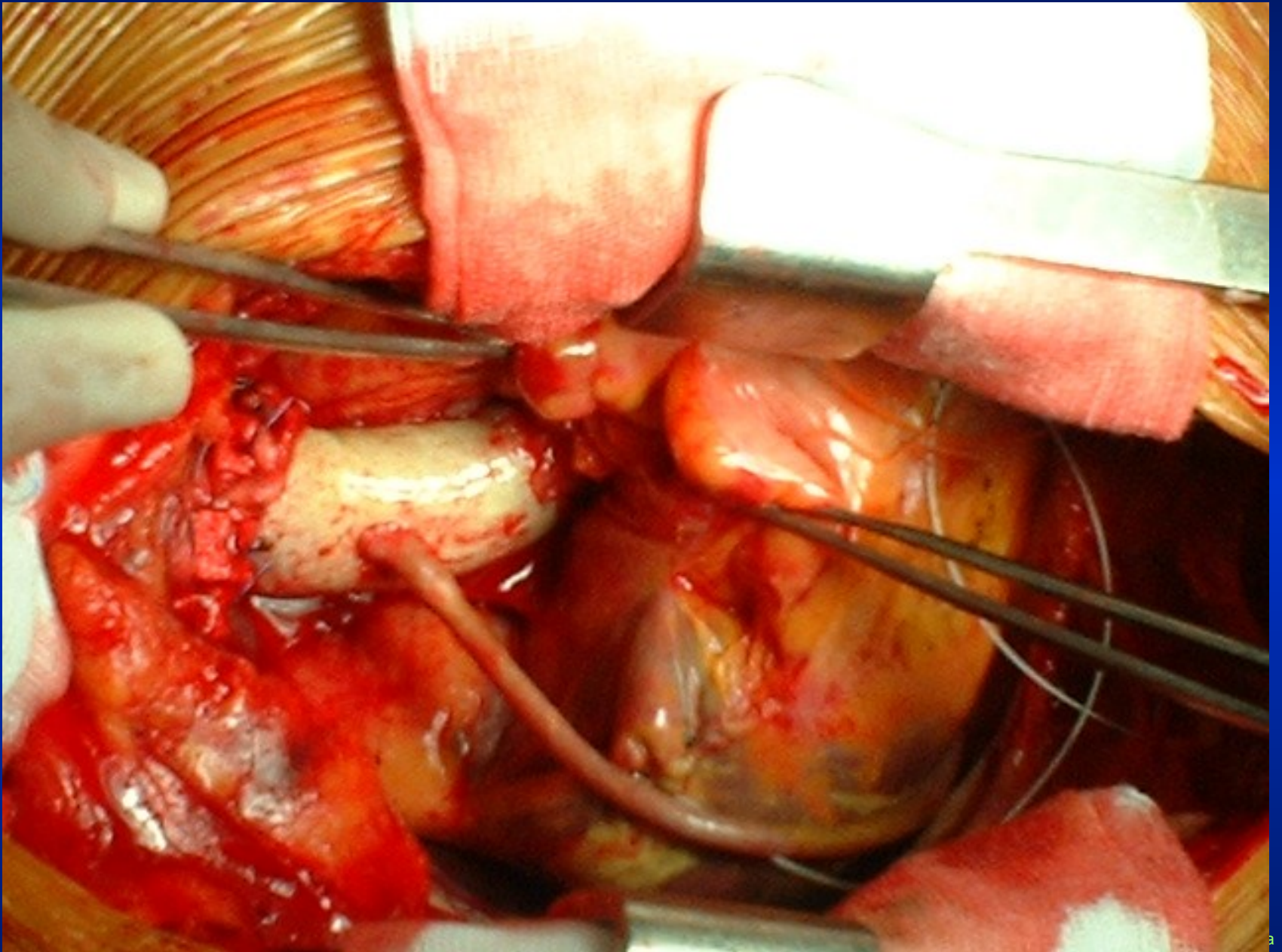


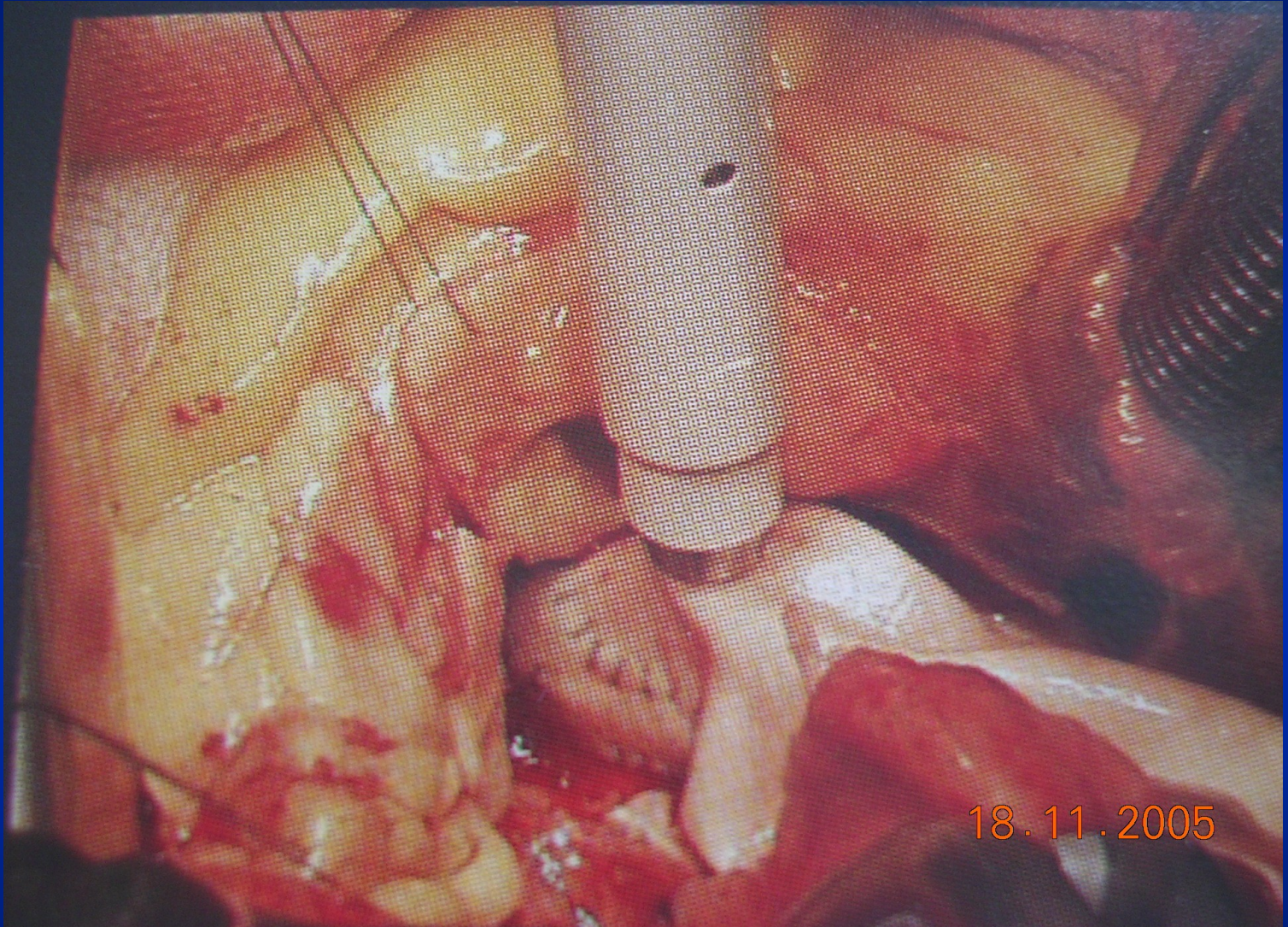
Shelhigh BioConduit

Description

- Unique stentless aortic valve conduit.
- Stentless valve made from three non-coronary cusps
- Bovine pericardium is attached to the stentless aortic valve
- Available sizes: 17,19,21,23,25,27and 31 mm
- Glutaraldehyde cross-linked, detoxified and heparin treated with *No-React*[®]







18.11.2005



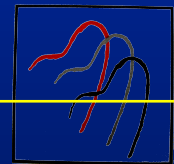
Patients and Methods

- Number 36
- Period of study Jun 2001 - May 2006
- Mean Follow up 19.3 ±14.8 months (1-49)



Preoperative characteristics of patients

Parameter	n	Mean \pm SD (range) or %
Age		72 \pm 5 (62-82)
Males	22	61
BSA		1.72 \pm 0.14
NYHA class		2.8 \pm 0.9
Permanent AF	4	11
Urgent surgery	6	16.6
Redo	10	27



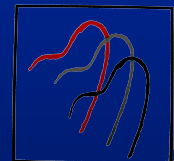
Aortic Pathology

- Stenosis	3	*
- Regurgitation	20	**
- Combined	5	
- Aortic bioprosthesis failure	6	***
- T.David redo	1	

* Bicuspid 1

** Annuloaortic ectasia 9

*** Bacterial endocarditis 1



Operative data

Mean aortic cross clamping time 97 ± 19 min

Mean cardiopulmonary bypass time 144 ± 47 min

Additional Procedure

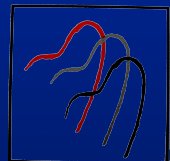
CABG 10

MVR 5

Aortic arch replac (Kazui) 4

FA ablation 4

ASD patching 1



Results

- Hospital Mortality 2
- Hospital Morbidity
 - Reoperation for bleeding 2
 - Prolonged mechanical ventilation (>72h) 2
 - Pericardiocentesis 2
 - Low Cardiac Output Sy 2
- Mean ICU stay 2.7 days
- Mean hospital stay 9.6 days

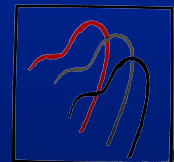


Follow-up

19.3 ± 14.8 months (1-49)

▪ Mortality	1*	
▪ Reoperation	0	
▪ Residual Regurgitation		0
▪ Residual Stenosis		0
▪ NYHA class	1.27±0.4	

*Carcinoma

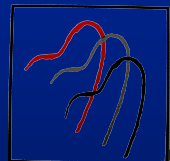


Echographic data

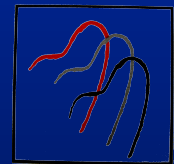
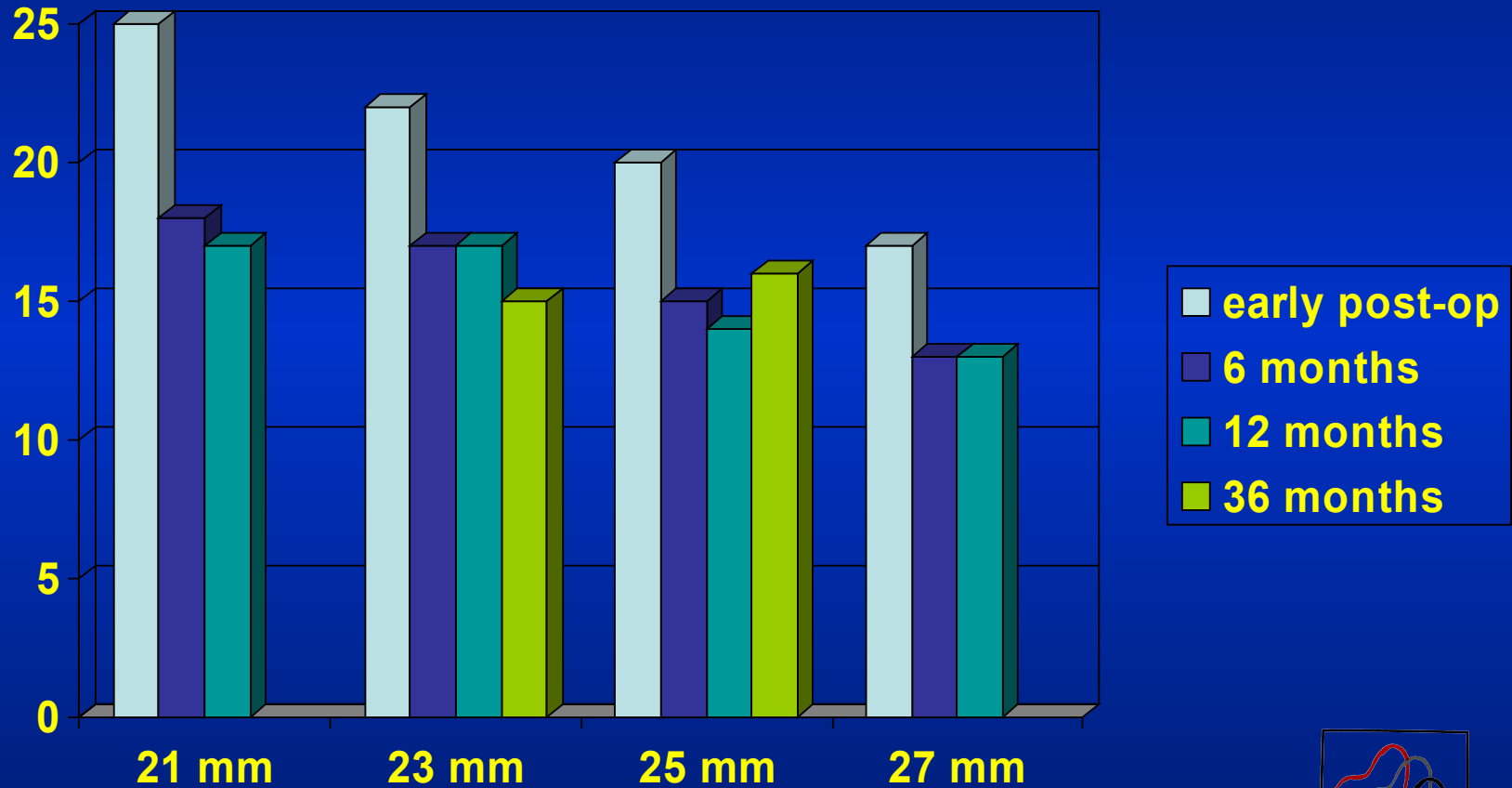
pre-op

post-op

- Mean LV end systolic diameter 4.4±0.5 cm 3.5±0.5 cm
- Mean LV end diastolic diameter 6.6±0.5 cm 4.6±0.7 cm



Peak gradient Evolution



Shelhigh BioConduit Benefits

- Easy to implant
- No suture holes/bleeding
- Non rinsing required
- Used as a mini-root or a total root replacement
- No anticoagulation therapy
- Low trans-valvular gradient

