

Port-Access Mitral Valve Repair for Isolated P2 prolapse (n = 355) Feb 1997 - Oct 2010

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PORT-ACCESS MITRAL VALVE SURGERY

Feb '97 – Oct '10 (n=2066)

<u>MV (n=2066)</u>	<u>N</u>	<u>%</u>
MVP	1604	77.6
MVR	462	22.4

<u>MVP N = 1604)</u>	<u>N</u>	<u>%</u>
Type I	377	23.5
Type II	1066	66.5
Type III	123	7.7
No classification	34	2.1

<u>Type II (n=1066)</u>	<u>N</u>	<u>%</u>
PML	741	69.5
AML	140	13.1
Both	185	17.4

<u>PML (n=741)</u>	<u>N</u>	<u>%</u>
P1	15	2.0
P2	493	66.5
P3	51	6.9
P2 P3	116	15.7
P1 P2	32	4.3
P1 P2 P3	34	4.6

All pts who had sliding plasty were excluded, we do not perform this anymore since 2006!

Type II P2 - triangular resection - no sliding plasty, n = 355

PORT-ACCESS TYPE II P2 MITRAL VALVE REPAIR

Feb '97 – 31 Oct '10 (n=355)

Preop data

NYHA (dyspnoe)

	%
• I :	24.8
• II :	46.9
• III :	24.1
• IV :	4.2

LVEF

	%
• > 50 :	95.5
• 30 - 50 :	3.9
• < 30 :	0.6

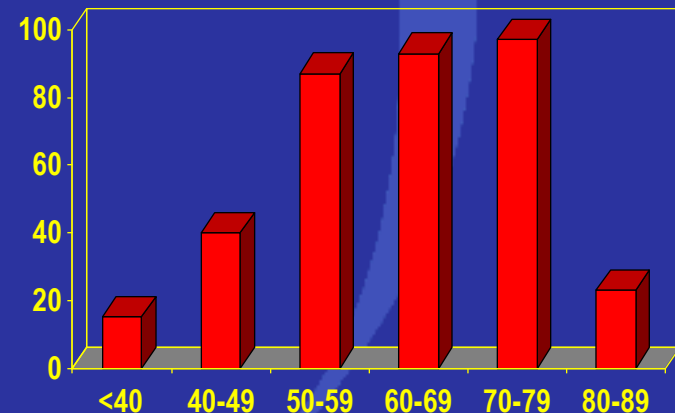
RHYTHM

	%
• SR :	83.8
• AF :	14.1
• Other :	2.0

Mean age: 62.6 ± 13 (29 – 92)

Gender: M / F : 265 / 90 (25.4% female)

Age distribution



PORT-ACCESS TYPE II P2 MITRAL VALVE REPAIR

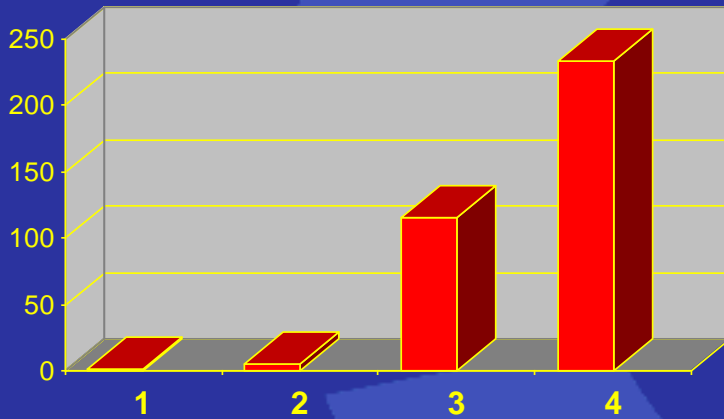
Feb '97 – 31 Oct '10 (n=355)

Comorbidity	N	%
Chronic endocarditis	6	1.7
Redo cardiac surgery	6	1.7
Hypertension	126	35.5
Hyperlipidemia	114	32.1
COPD	24	6.8
Diabetes	19	5.4
Smoking	122	34.4
Family history	37	10.4
CVA	16	4.5
Renal failure (+/- dialysis)	3	0.8

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Feb '97 – 31 Oct '10 (n=355)

MV regurgitation



<u>MV Etiology</u>	<u>N</u>	<u>%</u>
Degenerative	349	98.3
Chronic Endocarditis	6	1.7

PORT-ACCESS TYPE II P2 MITRAL VALVE REPAIR

Feb '97 – 31 Oct '10 (n = 355)

Incidence

- Emergency : n = 1 (0.3 %)

Pre-cardiac arrest strategy change : n= 7 (2.0 %)

- Lungadhesions : n = 5
- Cannulation problems : n = 1
- No visualization : n = 1

PORT-ACCESS TYPE II P2 MITRAL VALVE REPAIR

Feb '97 – 31 Oct '10 (n = 355)

Operative data

Conversion to sternotomy : n = 1 (0.3 %)

Right ventricular problems (hematoma)

All pts who had sliding plasty were excluded, we do not perform this anymore since 2006!

<u>Procedure</u>	<u>N</u>	<u>%</u>
Resection only	324	91.3
Resection with neochordae	17	4.8
Neochordae (no resection)	5	1.4
Incision and direct closure	9	2.5

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Operative data

EndoCPB and Endoclamp *sternotomy excluded

Endoaortic Clamp: 85min \pm 21 (37 - 177)

Perfusion time: 121min \pm 32 (55 - 285)

No endoclamp DH/CA : n = 1 (0.3%)

PORT-ACCESS TYPE II P2 MITRAL VALVE REPAIR

Feb '97 – 31 Oct '10 (n = 355)

Early morbidity

Early mortality: n = 1 (0.3 %) (respiratory failure)

Postop Interventions (%)

Early redo:	n = 0
Revision for bleeding:	n = 15 (4.2%)
Thoracoscopy for haemothorax:	n = 1 (0.3 %)
Subxyph drainage tamponade:	n = 1 (0.3%)
Tracheotomy for respiratory failure:	n = 2 (0.6 %)
Pacemaker:	n = 9 (2.5 %)
ICD:	n = 1 (0.3 %)

Other complications :

TIA : n = 3 (0.9%)
CVA: n = 1 (0.3%)

PORT-ACCESS TYPE II P2 MITRAL VALVE REPAIR

Feb '97 – 31 Oct '10 (n = 345)

Late follow-up → Mean time follow-up: 49.7 ± 41 months (1-167)

Late mortality

N = 19 (5.5%)

Mean age at operation: 75 ± 7 years

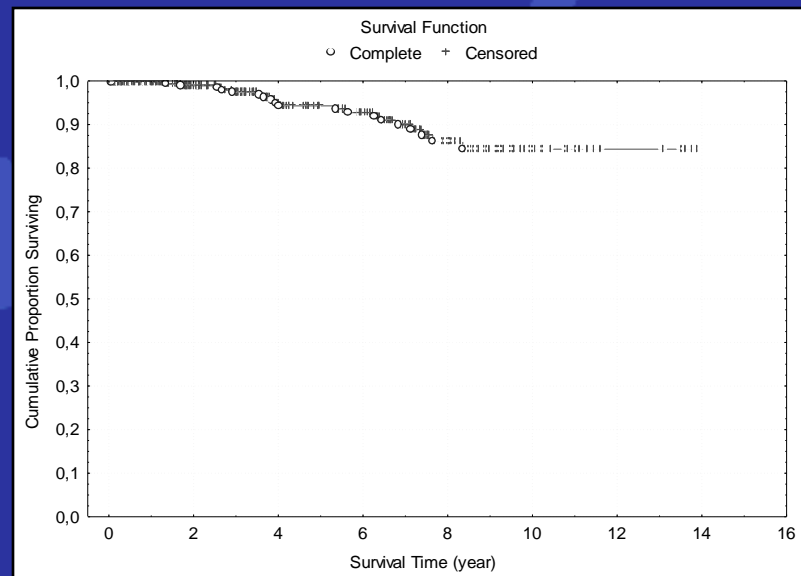
Mean age at death: 80 ± 7.8 years

Various reasons: see table

Reason late mort.	N
Cardiac	4
Trombo-embolic	2
Carcinoma	5
Respiratory	4
Age-related	2
Septicaemia	1
Trauma	1

Survival:

- 99.7 ± 0.3 % at 1 year postop
- 94.3 ± 1.7 % at 5 years postop
- 84.4 ± 3.6 % at 10 years postop



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Feb '97 – 31 Oct '10 (n = 345)

Late follow-up

Late reoperation: n = 8 (2.3%)

Approach

- Sternotomy : MVR: n = 3 (1 pt +CABG, 2 pts other hosp)
- Port-access : MVR: n = 2
MVP: n = 3

Reason

- Recurrent mitral regurgitation: n = 6
- Endocarditis: n = 2

Mortality: n= 0

Freedom from reoperation

- 99.3 ± 0.5 at 1 year postop
- 97.1 ± 1.2 at 5 years postop
- 95.6 ± 1.9 at 10 years postop

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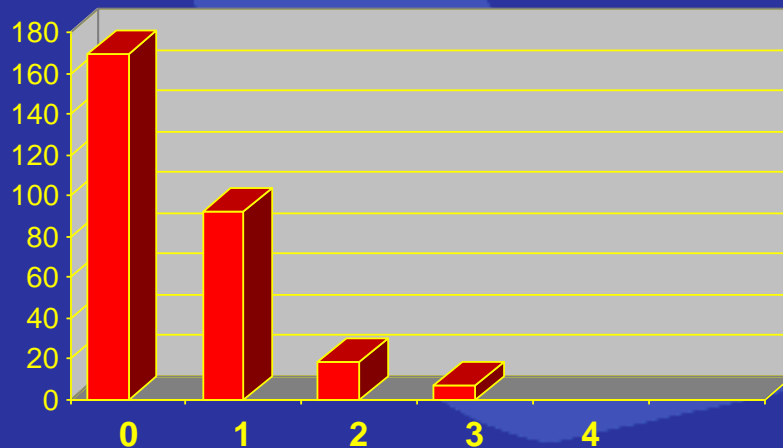
Feb '97 – 31 Oct '10 (n=345)

Late echocardiographic follow-up

Durability of the Repair :

Mean echocardiographic follow-up (80.8 % complete, n=287) : 46 ± 38 months

Residual regurgitation at follow up: 7 pts had MR > 2 (2.4 %)



CONCLUSION

Endoscopic triangular resection of isolated P2 prolapse is a very satisfying technique regarding mortality, morbidity, patient comfort and durability of the repair.

This pathology should be routinely treated endoscopically because the vast majority of these repairs are relatively simple.