

Perceval

From selected cases to routine use



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PERCEVAL

- 2.5 years 39 patients (july 2014)
- Start 2/2012
- Improvement in the surgical treatment
- Selected cases (most difficult)

Selected cases

- 25 patients
- Mean Age : 80 years
- AVR + CABG (1-4)
- AVR + Mitral plasty (+ CABG)
- (Jehovah 84 diabetes AVR + 3 Bypasses)

Selected cases

- Post op mortality ; 1 (4%)
- POD 13
- (hemoptysia)
- Reduction in ECC , clamping time : 20 %

- reimbursement nov 2013
- Can we use it for simple Biological AVR ?

Routine use

- Shortening clamping time ECC time less pregnant
- Good results with Classical Bioprosthesis
- better longevity
- good (better) hemodynamics
- No more (less) complications
- Open (new) era in surgical treatment

Better Longevity ?

- Has to be proven
- Unique characteristic gives hope
- Valve mounted in souple stent
- Elasticity in systole
- Less stress on the valve
- In labs , valves running with 15 to 50 years équivalent without deterioration



Valve is inserted into a silicone aortic root to simulate proper anatomy and compliance

Gradients intra op (all sizes prosth)

● gradient	pre impl	post impl	
● Max	44	13.6	mmHg
● Mean	24	6.8	mmHg
● surface	0.75	2.4	cm ²

Gradients intra op (L prosth)

● gradient	pre impl	post impl	
● Max	42.4	13.9	mmHg
● Mean	23.3	7.1	mmHg
● surface	0.8	2.65	cm ²

Gradients intra op (M prosth)

● gradient	pre impl	post impl	
● Max	44.43	12	mmHg
● Mean	25	6.2	mmHg
● surface	0.71	2.25	cm ²

Gradients intra op (S prosth)

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● gradient	pre impl	post impl	
● Max	66	25	mmHg
● Mean	40	10	mmHg
● surface	0.43	1.43	cm ²

Gradients post op in- hosp

- gradient
- Max 23.3 mmHg
- Mean 13.6 mmHg
- surface cm^2

Gradients F up(50-868 days)

- gradient
- Max 17.37 mmHg
- Mean 10.57 mmHg
- surface cm^2

Post op gradients

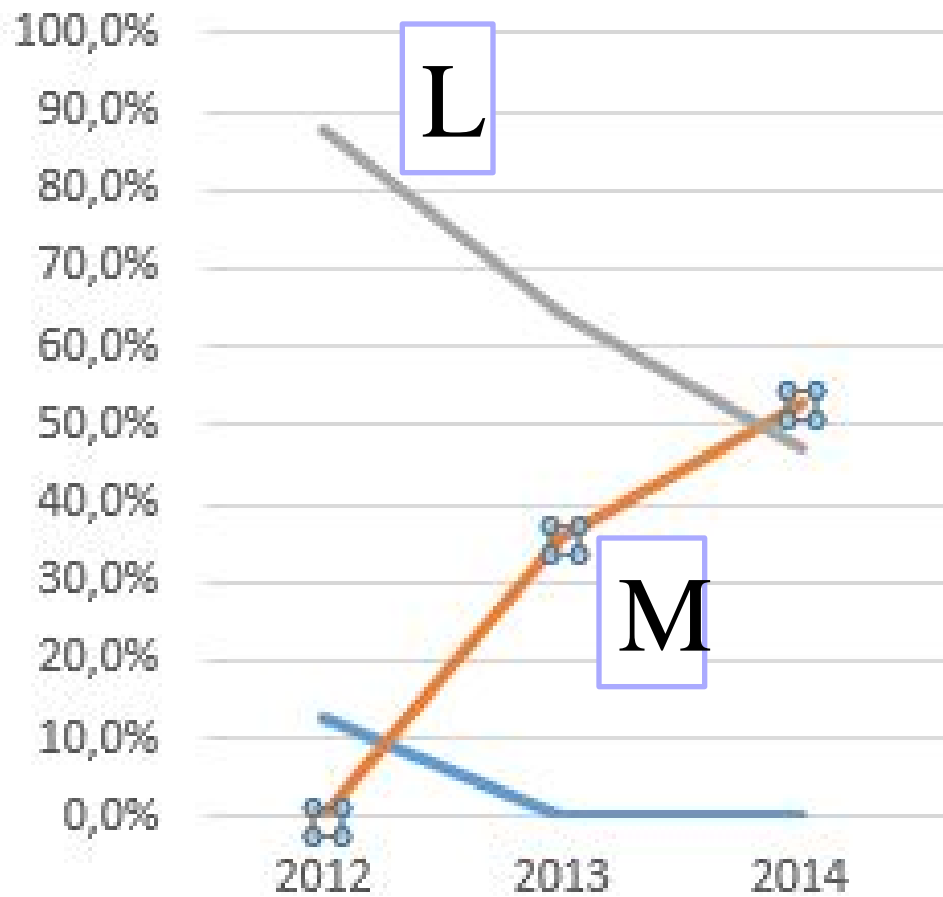
- Vast majority ; very good
- 2 times , unexplained high in- hosp post op peak gradient > 40 mmHg
- L valves in large patients (BSA > 2 m²)
- End op peak gradients : 12-16 mmHg
- Not retrieved at f up : 16 mmHg

No more (less) complications?

- Paravalvular insufficiency
- 1 / 39 (very beginning) (1-2/4)
- Complete AV block – Pace implantation
- 5/39 (12,8 %)
- All at J0-J1
- 2 preop conduction disturbances LBB
- 3 : Large valve , body height less 168 cm
- « paradoxical » mismatch (too large valve)

No more (less) complications?

- Do not oversize
- Change of paradigm
- Fear of para valvular leak
- technique of collapsing-expansion
- the one that fit , not the largest



Open (new) era in surgical avr?

- Open the way to (easier) mini-invasive cardiac surgery
- next topic



CONCLUSIONS

- After 2.5 years experience
- The best choice in combined complex avr
- Can safely be used in simple biological avr if the rate of pace maker is lowered by a perfect sizing method
- For sure , opens the way to easier safer mini invasive surgical avr by right thoracotomy

