Rapid Deployment Intuity valve for Surgical AVR

Early Clinical Experience

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Valve design



Tissue valve (Magna Ease) mounted on a balloon-expandable metallic skirt, which is anchored on LVOT

Advantages of rapid deployment valves

- Surgical approaches to the aortic valve
 - Surgical AVR
 - Traditional sutured valves
 - Rapid-deployment valves
 - Transcatheter AVR
- Surgical debridement of LVOT calcium may reduce PPM rate compared with TAVR
- Anchorage on LVOT may improve haemodynamic performance

Cohort profile

- From August 2018 to May 2020
- 18 subjects
- M:F = 11:7
- Median age 69, range 58 to 85
- Bicuspid: n = 2 (11%)
- Redo: n = 1 (5.5%)
- Aortitis: n = 1 (5.5%)

Median FU duration: 10 months

Surgical approach



n (%) Sternotomy 14 (78%) Hemisternotomy 3 (16.7%) Right VATS 1 (5.5%)

Isolated trans-sternal SAV	/R (n = 6)
Cross-clamp time	60.8 ± 14.9 min
Bypass time	99.7 ± 29.4 min

For isolated trans-sternal SAVR, similar XC and CPB times

Concomitant procedures	n (%)
CABG	4 (22%)
Ascending replacement	2 (11%)
MVR	2 (11%)
Root enlargement	1 (5.6%)
	9 (50%)

Potentially cuts XC and CPB times in complex procedures

Haemodynamic profile	
Mean gradient	$7.33\pm3.18~\mathrm{mmHg}$
Mod-severe PVL	1 (5.5%) \rightarrow Aortitis

Complications	n (%)
Mortality	1 (5.5%) → MOF
Resternotomy for bleeding	1 (5.5%)
PPM	2 (11%)

Summary



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Mod-severe PVL	1 (5.5%)

Cohort profile	n (9	%)
No. of subjects	18	
M:F	11:	7
Age	Me Rar	edian 69 nge 58 to 85
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Redo	1 (5	5.5%)
Aortitis	1 (5	5.5%)
Approach		n (%)
Sternotomy		14 (78%)
Hemisternotomy	,	3 (16.7%)

1 (5.5%)

Right VATS

SAVR
60.8±14.9 min
99.7 ± 29.4 min

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CABG	4 (22%)
Ascending replacement	2 (11%)
MVR	2 (11%)
Root enlargement	1 (5.6%)
Complications	n (%)
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