

Lessons learnt from the Asia TAVI registry

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Clinical Outcomes after Transcatheter Aortic Valve Implantation in Asia – Results of a Multicentre Registry

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I have the following potential conflicts of interest to report:

Consultant: EDWARDS LIFESCIENCES, MEDTRONIC

Background and Methods

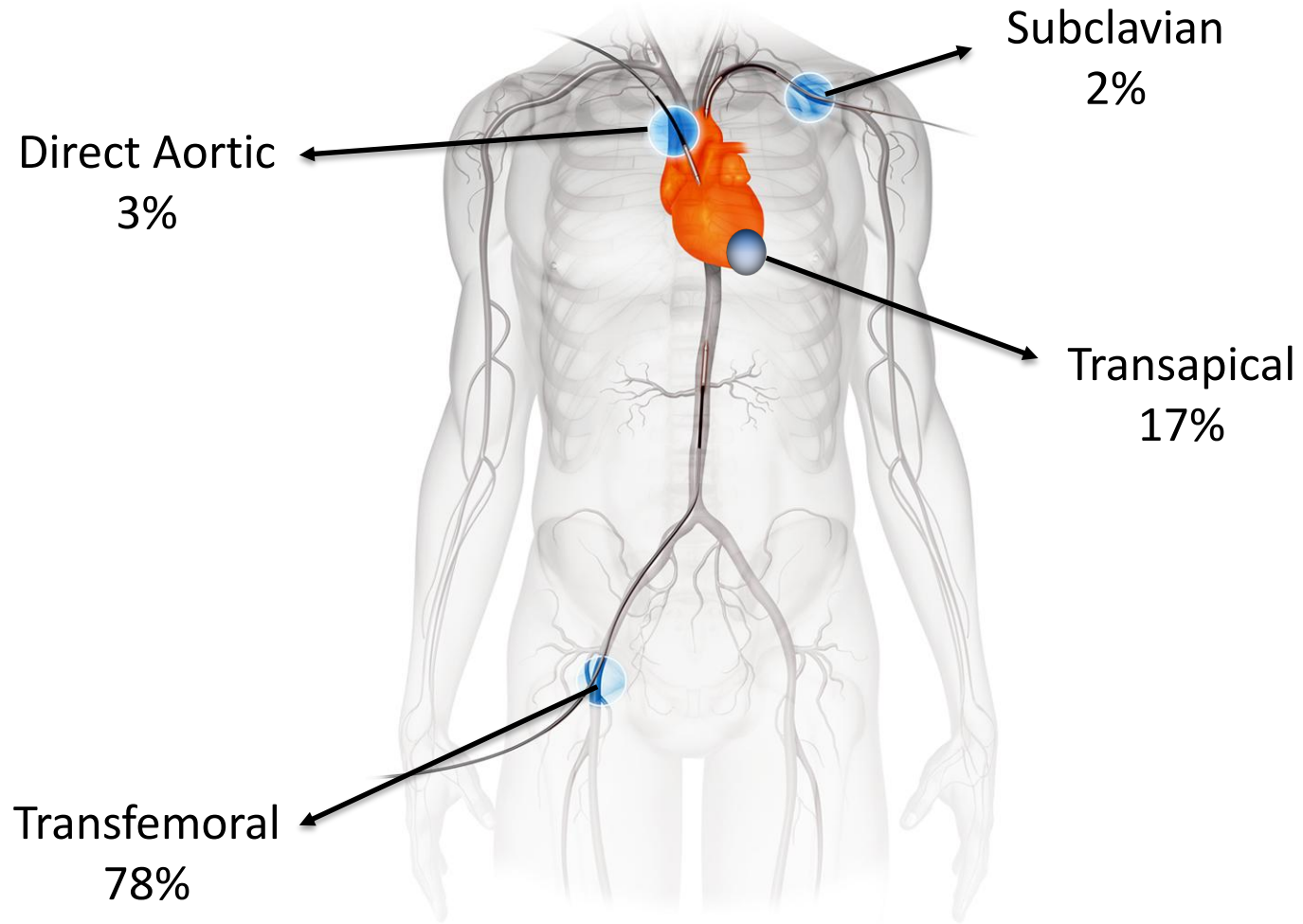
- Transcatheter aortic valve implantation (TAVI) has become a treatment option for selected patients with symptomatic severe aortic stenosis (AS).
- Current data are virtually all from North American or European centres.
- Whether the smaller Asian physique will affect outcomes after TAVI is unknown.
- Thus we aim to evaluate clinical outcomes in patients undergoing TAVI from multiple centres across Asia.
- Patients with symptomatic severe AS undergoing TAVI using the **Edwards Sapien valve or Medtronic CoreValve** were enrolled from 14 Asian centres.
- Patient demographics, clinical characteristics, procedural and 30-day outcomes were recorded and analysed.

Baseline Characteristics

Characteristics (N=253)			
	% or Mean \pm SD		Mean \pm SD
Age (yrs.)	78.2 \pm 7.2	NYHA (class)	2.8 \pm 0.6
Males	46.7%	MPG (mmHg)	53 \pm 18
Log EuroSCORE (%)	19.7 \pm 13.9	AVA (cm ²)	0.7 \pm 0.2
Weight (kg)	59.1 \pm 11.7	LVEF (%)	58 \pm 13
Height (cm)	157 \pm 9		

Characteristic	CoreValve	Sapien	p
N	140	113	
Log EuroSCORE (%)	19.2 \pm 15.9	20.3 \pm 11.1	0.53

Procedure



Prosthesis Size

CoreValve



26mm
60.5%

31mm
6.7%

29 mm
32.8%

Sapien



23mm
66.4%

26mm
33.6%

Results | Procedural and 30-day outcomes

Outcomes	Overall
Procedural Success	97%
Major Vascular Complications*	4%
NYHA*	1.4 ± 0.6
Mortality*	3%
Stroke*	1.6%
Permanent Pacemaker Requirement*	9%

30-day Outcomes	CoreValve	Sapien	p
Mortality	2%	5%	0.19
Stroke	0.7%	2.7%	0.33
Permanent Pacemaker Requirement	15.7%	0.9%	<0.0001

* 30-day outcome

Results | 30-day outcomes

Hemodynamics	% or Mean \pm SD
\leq Mild Paravalvular Leak	95%
\geq Moderate Paravalvular Leak	5%
LVEF (%)	61 \pm 11
AVA (cm ²)	1.8 \pm 0.5
MPG (mmHg)	11 \pm 6

Conclusion

- Early experience suggests that TAVI is effective and safe in a diverse Asian population using the **Sapien and CoreValve**.
- High procedural success rate (97%).
- Low 30-day mortality (3%) and stroke rate (1.6%).
- There were no clinical outcome differences between the 2 devices except for higher pacemaker requirement with the CoreValve.

Lessons learnt

- 1. TAVI is now an alternative option for selected Asian patients with severe AS
- 2. The procedure is safe even in the early learning phase
- 3. Smaller valves are predominantly used in Asia likely due to the smaller physical stature
- 4. Good hemodynamics and improvement in QOL
- 4. Low stroke rate is an interesting finding and may be due to less extracranial carotid disease in Asians
- 5. Very low PPM requirement especially with the Sapien valve

Thank you