

Table (1):- Demographic data, pre-operative risk factors.

Variable	DVR alone (N=50)	DVR with ARE (N=50)
Age	Mean 32±24	Mean 35±20
Gender	65% female	70% female
BSA	1.7±0.5 m ²	1.5±0.2m ² [average 1.37 m ²]
NYHA class		
I	5.9%	4.1%
II	19.8%	15.9%
III	60.4%	68.5%
VI	13.9%	11.5%
AF	20%	30%
Bicuspid aortic valve	1%	2.5%
PVD	No	No
COPD	No	No
LCO	No	No
HTN	No	0.5%
DM	No	2.5%
s/p MI or CAD	No	No
Smoking	5%	10%
Stroke and TIAs	No	No
Aortic lesion		
Stenosis	18.4%	34% P-value ≤0.0001
Insufficiency	10.8%	3.7% 0.0002
Mixed	70%	61.6% 0.0069

Table (2):- Pressure gradient and EF.

Variable	DVR alone.	DVR with ARE
Preop. PG (mmHg)	75±3.5	85 ± 0.5
Postop PG (mmHg)	25.9 ± 5.8	15 ± 2.3
EF (%) Postop.	45 ± 4.7	55 ± 5.9

Table (3):- Postoperative data

Variable	DVR alone	DVR with ARE
CPB time (minutes)	117±43	133±49
CC time (minutes)	92±35	105±39
Postop. LCO	No	4%
Bleeding and re-exploration	No	No
Blood product requirement	2±1.5	3±2.3
Duration of MV (hr.)	12 ± 6	18 ± 6.4
Infection		
1- SSWI	1.5%	3%
2- Pneumonia	No	0.5%
Heart Block (HB)	1%	No
Paravalvular Leak (PVL)	1%	No
ICU Stay (days)	3 ± 1.8	4 ± 2.3
Total Hospital Stay (days)	10 ± 5.1	12 ± 7.2

Table (4):- size of prosthetic valves

Variable	AVR alone	AVR with ARE
Prosthetic aortic valve	19	21 – 23 - 25
Prosthetic mitral valve	25- 27	27 – 29