**Supplementary table S1: clinical characteristics and right ventricular pressure before and after PVR of 24 patients who underwent PVR for right ventricular obstruction, associated or not.**

|  |  |
| --- | --- |
|  | mean±SD (range) |
| Age at PVR (y) | 28.7±11 (13.4-48.4) |
|  |  |
|  | nb |
| Predominant RV obstructionMixed lesion RV pressure before PVR (mmHg)RV pressure after PVR (mmHg)RV pressure decrease | 13/2411/2481±1445±837±15 |
|  |  |

PVR: pulmonary valve replacement; RV: right ventricle.

**Supplementary table S2: Comparison of pre and post PVR cardiopulmonary exercise test parameters**

\*: p-value for percentages of theoretical value; HR: heart rate; O2P: oxygen pulse; p: p-value for percentages of theoretical value; PVR: pulmonary valve replacement; RER: respiratory exchange ratio, th: theoretical value at peak; VO2:oxygen uptake; VE/VCO2: ventilatory efﬁciency.

|  |  |  |  |
| --- | --- | --- | --- |
|  | before PVR | after PVR | p |
|  |  | % th |  | % th |  |
| Peak power (watt) | 106±34 | 56.2±18 | 113±36 | 59.6±17 | 0.07\* |
| Peak VO2 (ml/Kg) | 19.9±6 | 54±0 | 24.6±6.1 | 57.2±12.5 | 0.12\* |
| Peak HR (min-1) | 148±35 | 77.4±14.6 | 150±23 | 77.7±9.9 | 0.70\* |
| Peak O2P (ml) | 9.3±1.6 | 71.9±18 | 9.7±2.3 | 73±11 | 0.52\* |
| Peak RER | 1.17±0.07 |  | 1.14±0.07 |  | 0.99 |
| Peak VE/VCO2 | 39.1±4.3 |  | 38.3±5.3 |  | 0.27 |

**Supplementary table S3: Comparison of pre and post PVR left/right ventricle MR parameters**

|  |  |  |  |
| --- | --- | --- | --- |
| MR parameters | before PVR (n) | after PVR (n) | p |
| Right ventricle | RVEDV (ml/m2) | 114±54 | 91±45 | 0.01 |
|  | RVESV (ml/m2) | 66±46 | 54±42 | 0.04 |
|  | RVSV (ml/m²) | 49±18 | 38±13 | 0.026 |
|  | RVEF (%) | 45±13 | 46±16 | 0.9 |
|  |  |
|  |  |  |  |  |
| Left ventricle | LVEDV (ml/m2) | 70±14 | 71±17 | 0.47 |
|  | LVESV (ml/m2) | 33±13 | 30±12 | 0.41 |
|  | LVSV (ml/m2) | 39±9 | 41±8 | 0.15 |
|  | LVEF (%) | 54±12 | 58±9 | 0.16 |
|  |  |  |  |  |
|  |  |  |  |

LVEDV: left ventricle end diastolic volume; LVEF: left ventricle ejection fraction; LVESV: left ventricle end systolic volume LVSV: left ventricle stroke volume; PRF: pulmonary regurgitation fraction; RVEF: right ventricle ejection fraction; RVEDV: right ventricle end diastolic volume; RVESV: right ventricle end systolic volume; RVSV: right ventricular stroke volume.

**Supplementary table S4: Prediction of normal post PVR right ventricle ejection fraction (>50%) in patients with pure pulmonary regurgitation**

|  |  |  |
| --- | --- | --- |
| **Pre PVR predictors** | **Area under the ROC curve** | **p** |
| Peak oxygen pulse | 0.407 | 0.749 |
| Right ventricle ejection fraction | 0.605 | 0.201 |

p: p-value for AUC ≠ 0.5; PVR : pulmonary valve replacement