In-depth hemodynamic phenotyping of pulmonary hypertension due to left heart disease

Christian Gerges, MD*, Mario Gerges, MD*, Pierre Fesler, MD, PhD†, Anna Maria Pistritto, MD‡, Nicholas P Konowitz*, Johannes Jakowitwsch, PhD*, David S Celermajer, MD, PhD#, Irene M Lang, MD*

From the *Department of Internal Medicine II, Division of Cardiology, Vienna General Hospital, Medical University of Vienna; †Department of Internal Medicine Lapeyronie, CHU Montpellier and PhyMedExp, Univ Montpellier, CNRS, INSERM, Montpellier, France; ‡Department of Internal Medicine, Division of Cardiology, Ferrarotto Hospital, University of Catania; #Department of Cardiology, Sydney Medical School, University of Sydney.

"Online Data Supplement"

Table A. Response to inhaled nitric oxide in combined post- and pre-capillary pulmonary hypertension (Cpc-PH).

	PH-LHD (n=55)				
Relative change	All Ipc-PH* (n=20)	All Cpc-PH (n=35)	Cpc-PH Classic responders (n=3)	Cpc-PH Non-classic responders (n=5)	Cp-PH Non-responders (n=27)
mPAP (%)	+2±13	**-10±16**	**-33±17**	**-4±13**	-4±13
CO (%)	+1±15	**+7±18**	**+33±18**	+4±15	+4±15
PVR (%)	-5±33	**-27±33**	**-55±8**	**-17±32**	**-17±32**
R_{up} (%)	+1±4	**+10±15**	**+49±15**	+6±17	**+13±14**

CO=cardiac output; mPAP= mean pulmonary artery pressure; PVR=pulmonary vascular resistance; R_{up}=upstream resistance. Statistically significant ($p<0.05$) relative changes from baseline are highlighted in **bold**. *1 patient with Ipc-PH fulfilled non-classic responder criteria.

Table B. Response to inhaled nitric oxide in idiopathic pulmonary arterial hypertension (iPAH).

Relative change	All iPAH (n=31)	Classic responders (n=3)	Non-classic responders (n=9)	Non-responders (n=19)
mPAP (%)	**-14±14**	**-42±5**	**-7±9**	**-6±9**
CO (%)	**8±11**	3±5	**9±13**	**9±12**
PVR (%)	**-27±17**	**-53±9**	**-19±14**	**-18±14**
R_{up} (%)	**10±17**	**49±15**	8±12	6±14

CO=cardiac output; mPAP= mean pulmonary artery pressure; PVR=22; R_{up}=upstream resistance.

Statistically significant ($p<0.05$) relative changes from baseline are highlighted in **bold**.

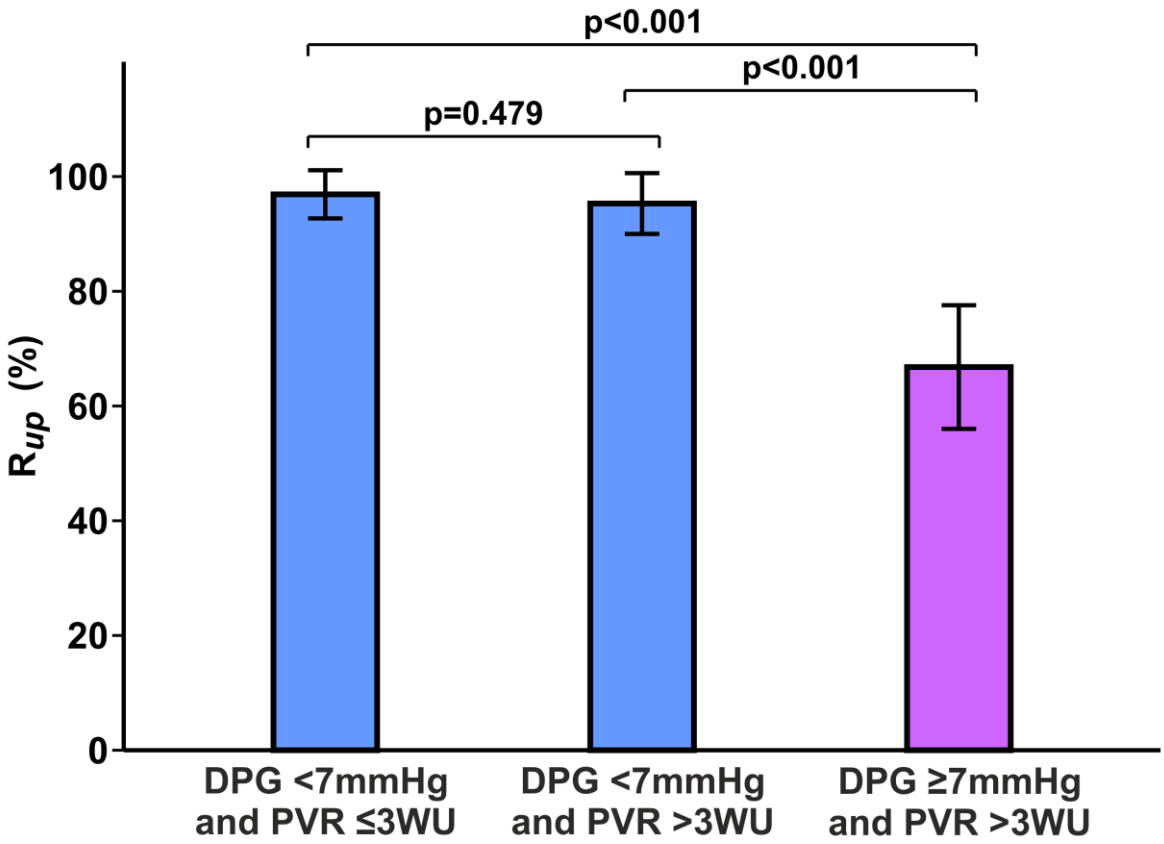

Figure A. Upstream resistance in pulmonary hypertension due to left heart disease.

Upstream resistance (R_{up}) in pulmonary hypertension due to left heart disease with diastolic pulmonary vascular gradient (DPG) <7mmHg and pulmonary vascular resistance (PVR) ≤3WU (n=6; left blue bar), DPG <7mmHg and PVR >3WU (n=14; right blue bar) and DPG ≥7mmHg and PVR >3WU (n=35; purple bar). P-values are results of independent samples *t*-tests.