

RESULTS IN CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION FROM THE SPANISH PROSPECTIVE REGISTRY.

R.del Pozo-Rivas¹, JA.Barberá-Mir², M.Izquierdo-Patrón³, L.Dos-Subirá⁴, A.Lara-Padrón⁵, L.Molina-Ferragut⁶, T.Elías-Hernández⁷, FJ.Mazo-Etxaniz⁸, P.Ramírez-Martín⁹, P. Escribano-Subías¹ and the REHAP investigators

¹ Department of Cardiology, Hospital 12 de Octubre. Madrid, Spain. ² Department of Pneumology, Hospital Clinic i Provincial de Barcelona. Barcelona, Spain. ³ Department of Pneumology, Hospital Universitario Fundación de Alcorcón. Madrid, Spain. ⁴ Department of Cardiology. Ud. de C.C. Adolescente y Adulto Vall d'Hebrón-Sant Pau. Barcelona, Spain. ⁵ Department of Cardiology. Hospital Universitario de Canarias. Santa Cruz de Tenerife, Spain. ⁶ Department of Cardiology. Hospital del Mar. Barcelona, Spain. ⁷ Department of Pneumology, Hospital Universitario Virgen del Rocío. Sevilla, Spain. ⁸ Department of Pneumology, Hospital de Basurto. Bilbao, Spain. ⁹ Department of Pneumology, Hospital Universitario Nuestra Señora de la Candelaria. Santa Cruz de Tenerife, Spain

Introduction: The choice treatment for chronic thromboembolic pulmonary hypertension (CTEPH) is the pulmonary endarterectomy (PE). However an important proportion of patients with CTEPH receive only medical treatment (MT) due to distal inoperable disease or comorbidities. **Aim:** To compare clinical, hemodynamic variables and the evolution between CTEPH patients to which PE was performed and those receiving only MT in Spain.

Methods: Voluntary reporting of incident CTEPH cases from 2007 to 2013 was evaluated. 321 CTEPH patients were analyzed (63±16 years,44% men), PE were performed in 87 patients (27%) and 234 patients (73%) received only MT. Clinical parameters, biomarkers (pro-BNP), 6-minutes walking test (6MWT) and hemodynamic variables were compared at diagnosis and after one year of follow-up.

Results: Patients undergoing PE were younger (55±16 vs 67±16 years,p<0.001), higher proportion of men (59% vs 38%, p=0.001) and a greater distance walked in the 6MWT (388±115 vs 348±120 meters, p=0.03) than those receiving only MT. No significant differences were found in functional class (FC), body mass index (BMI), BNP value or baseline hemodynamic parameters other than mean pulmonary arterial pressure (mPAP) 49±12 vs 45±12 mmHg (p=0.004); pulmonary vascular resistance (PVR) 10.2±4.5 vs 9.9±6.2 Wood Units; cardiac index (CI) 2.2±0.6 vs 2.3±0.6 L·min⁻¹·m². At time of the PE, 55 (63%) patients were being treated with targeted PH therapy. 200 patients (86%) who PE weren't performed, were treated with targeted PH therapy. The results after 1 year of follow-up are in the table 1:

	PE (n=53)	MT (n=127)	p-value
FC I-II, n (%)	51 (96)	76 (60)	<0.001
proBNP, pg/mL \pm SD	308 \pm 412	1409 \pm 1790	<0.001
6MWT, m \pm SD	471 \pm 85	385 \pm 122	<0.001
mPAP, mmHg \pm SD	30 \pm 10	40 \pm 12	<0.001
CI, L \cdot min ⁻¹ \cdot m ² \pm SD	2.8 \pm 0.7	2.4 \pm 0.6	0.03
PVR, Wood \pm SD	4.2 \pm 2.5	11 \pm 4.9	<0.001
Targeted PH therapy, n (%)	11 (21%)	127 (100)	<0.001

Survival at 1, 3 and 5 years from diagnosis for PE vs MT was 97.4 % vs 92.4 %, 89.6 % vs 82.5 % and 79.2 % vs 66.2, respectively (p = 0.008).

Conclusions: In CTEPH, the PE provides therapeutic results clearly superior to the MT; but in Spain the percentage of the PE is lower respect other countries. These results reinforce the PE as the first therapeutic option in CTEPH patients with accessible lesions.