Pulmonary endarterectomy in a country without pulmonary endarterectomy: the favorable impact of a cross-border system of care.

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PURPOSE: Pulmonary endarterectomy (PEA) is the treatment of choice for Chronic Thromboembolic Pulmonary Hypertension (CTEPH) and can be curative. PEA is not routinely available in Portugal but the patient is fully reimbursed by the Portuguese National Health Service if surgery is performed abroad. We aimed to assess treatment options and outcomes for patients with CTEPH in a country where there is limited access to PEA, namely if there are any barriers to foreign referral.

METHODS: We performed a multicenter, retrospective analysis of 140 patients diagnosed with CTEPH in six pulmonary hypertension centers in Portugal during the last 10 years. Surgical status (operated vs. non-operated) was available for all patients; the remaining clinical and follow-up data was available for 87 patients.

RESULTS: The mean age of CTEPH patients was 57 ± 15 years, with a female preponderance (66%). Surgery was performed in 43 patients (31%), consisting of 42 PEA and 1 heart-lung transplantation due to concomitant severe left ventricular dysfunction. PEA mortality rate was 7.1%. Although patients submitted to PEA were significantly younger (50 +/ 15 vs. 61 +/- 12 years, $p < 0.001$), their functional capacity as assessed by NYHA class (NYHA class II or IV 84% vs. 69%, $p = 0.104$) or 6-minute walking test (366 +/- 96 vs. 366 +/- 119 m, $p = 0.966$) was similar to patients not submitted to PEA. No differences were also found regarding pulmonary vascular resistance (11.6 +/- 4.7 WU vs. 10.6 +/- 7.3 WU, $p = 0.535$). However, 6MWD increased significantly more when patients were submitted to PEA than when treated with pulmonary vasodilators (+ 110 m vs. 3 m, $p < 0.001$). At presentation to the expert center, 23% of patients were already treated with selective pulmonary vasodilators. Half of patients submitted to PEA did not require any pulmonary vasodilator after surgery, whereas 12% required double or triple combination therapy. Almost 75% of patients with CTEPH not submitted to PEA were on pulmonary vasodilators (39% single, 24% double and 9% triple combination therapy), most commonly an endothelin receptor antagonists, followed by sildenafil and prostanoids.

CONCLUSION: Portuguese patients can access and benefit from PEA through bilateral agreements but are limited by the need of cross-border treatment. Although PEA results are similar in comparison with published registries, CTEPH prevalence might justify a center in our country.