

OUTCOMES IN CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION

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Objective: To describe characteristics and outcomes between the subgroups of chronic thromboembolic pulmonary hypertension (CTEPH).

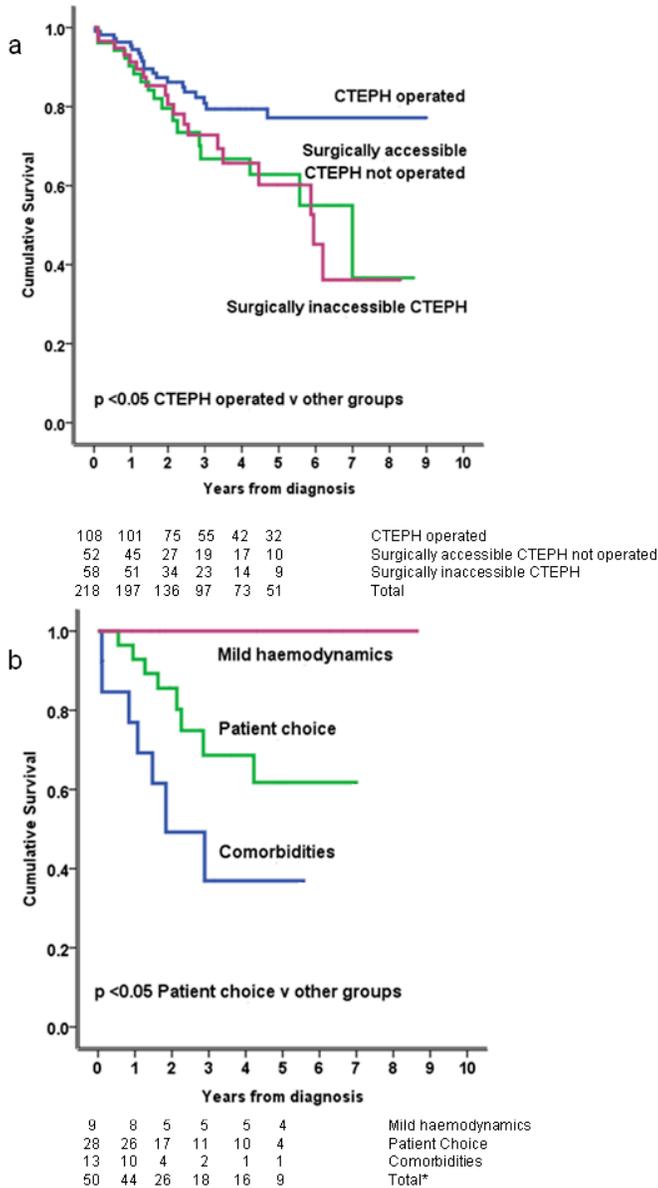
Methods: Review of 1737 consecutive patients evaluated 2001-10 for suspected PH identified incident, treatment-naïve cases of CTEPH.

Results: 218 patients with CTEPH were included. 3-year survival in CTEPH operated (undergoing pulmonary endarterectomy (PEA)) was 83%, superior to surgically inaccessible CTEPH or surgically accessible CTEPH not operated ($p < 0.05$; figure a). There was no significant difference in hemodynamic severity between these groups (table). 3-year survival in patients who were not candidates for PEA due to the presence of significant comorbidities (37%) was inferior to that in patients who declined PEA (69%) which was inferior to those with haemodynamics considered too mild to require intervention (100%, $p < 0.05$; figure b). Between 2001-09 the incidence of patients diagnosed at our centre with CTEPH increased from 0.3 to 3.7 cases/million/year respectively.

	<i>CTEPH operated</i>	<i>Surgically accessible CTEPH not operated</i>	<i>Surgically inaccessible CTEPH</i>
	n = 108	n = 52	n = 58
Age (yrs)	57±15 [†]	70±12 [*]	63±16
Female (%)	44 ^{†‡}	67 [*]	60 [*]
WHO III/IV (%)	72/14	65/24	74/14
ISWD (m)	203±174	129±122	177±141
mRAP (mmHg)	10±5	10±6	11±5
mPAP (mmHg)	49±10	45±11	46±13
CI (L.min.m ⁻²)	2.3±0.6	2.5±0.9	2.6±0.8
PCWP (mmHg)	10±4	10±5	11±6
PVR (dyn.s.cm ⁻⁵)	780±389	740±373	689±424
MVO2 (%)	60±8	60±9	61±10

* $p < 0.05$ in comparison to CTEPH operated, † $p < 0.05$ in comparison to surgically accessible CTEPH not operated, ‡ $p < 0.05$ in comparison to surgically inaccessible CTEPH

Figure (a) cumulative survival from date of diagnosis in CTEPH (b) survival in surgically accessible CTEPH not undergoing PEA by reason not operated.



Conclusions: Patients with operable disease who underwent PEA had the best long-term outcome. Patients with surgically accessible CTEPH not operated had similar outcomes to those with surgically inaccessible disease. This reinforces the importance of identification and counselling of patients with potentially operable CTEPH. The observed incidence of diagnosed CTEPH increased markedly during the study period in keeping with increased awareness of this condition and reflects the success of the UK PH network.