

Regaining Work Ability One year after PEA in Patients with CTEPH

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Introduction

- CTEPH affects patients of all age groups (median age 60; range 18-84 years).
- The disease significantly limits functional capacity and quality of life.
- PEA is the guideline-recommended, potentially curative treatment of choice.
- Workforce participation is an important patient-centred and socioeconomic outcome.
- The question of whether the operation will enable patients to return to work is of great importance.
- Impact of CTEPH on work ability before and after PEA surgery is yet to be investigated.

Discussion

- Surgical CTEPH treatment enables most patients to return to the workforce.
- 51% of preoperatively unemployed patients regained work ability after PEA.
- Age (> 54 years) and Diabetes mellitus are independent limiting factors on work ability.
- Patients with better WHO functional class are more likely to regain working ability after PEA.

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Methods

- Prospective, single-centre, observational cohort study
- Adult CTEPH patients within working age (18-66 years) undergoing PEA between 2022 and 2024
- Endpoints:
 - Ability to resume work 1 year after PEA
 - Work capacity before onset of symptoms, before surgery and 1 year after PEA
- Statistics:
 - One-way-ANOVA with Bonferroni post-hoc test
 - Multivariable regression and ROC analysis to identify influencing factors on primary endpoint

Conclusions

- PEA restores societal participation and limits economic strain in CTEPH patients.
- Surgical treatment goes beyond clinical and haemodynamic recovery.
- Results support the relevance of surgical treatment in CTEPH patients.
- The study is of great importance not only for each individual patient but for society.

Results

- 145 patients included into analysis (54 % male, mean age 51±12 years)
- 69% (n=101) returned to work within 1 year after PEA (p<0.001 vs. preop)
- Working hours significantly increased after PEA (24 hours vs. 15 hours / week, p<0.001 vs. preop)

- Higher Age [OR: 0.956, 95% CI: 0.920-0.993, p=0.021] and diabetes [OR: 0.321, 95% CI: 0.108-0.953, p=0.041] independent risk factors for limited work ability
- Lower WHO-FC before surgery favourable factor on working ability [OR: 3.773, 95% CI: 1.020-13.958, p=0.047]

