primary studies - published, non RCT

Feasibility and efficacy of combined pancreatic islet-lung transplantation in cystic fibrosis related diabetes -PIM study: a multicenter phase 1-2 trial.

Code: PM35403818 **Year:** 2022 **Date:** **Author:** Rakotoarisoa L

Study design (if review, criteria of inclusion for studies)

Multicenter, prospective, phase 1-2 trial

Participants

10 participants (age: 24 years [17-31], with CFRD, terminal respiratory failure and poorly controlled diabetes. Diabetes duration: 8 years [4-12])

Interventions

Combined pancreatic islet-lung transplantation from a single donor with 2892 IEQ/kg [2293 - 6185].

Outcome measures

At one year, the primary outcome was transplant success as evaluated by a composite score including four parameters (weight, fasting glycaemia, HbA1c, insulin requirements).

Main results

Transplant success was achieved in 7/10 participants at one year post-transplant. Fasting plasma C-peptide increased from 0.91Î¼g/L [0.56-1.29] to 1.15Î¼g/L [0.77-2.2], HbA1c decreased from 7.8% [6.5-8.3] (62 mmol/mol [48-67]) to 6.7% [5.5-8.0] (50 mmol/mol [37-64]), with 38% decrease in daily insulin doses. No complications related to the islet injection procedure were reported.

Authors' conclusions

In this pilot study, combined pancreatic islet-lung transplantation restored satisfactory metabolic control and pulmonary function in patients with CF, without increasing the morbidity of lung transplantation.

http://dx.doi.org/10.1111/ajt.17058

See also

Am J Transplant. 2022 Apr 11. doi: 10.1111/ajt.17058.

Keywords

Lung Transplantation; non pharmacological intervention - surg; Respiratory Insufficiency; Respiratory Tract Infections; transplantation; Infection; Respiratory Tract Diseases; pancreatic islet transplantation; Diabetes Mellitus; Pancreatic Diseases; Gastrointestinal Diseases;