European Respiratory Society
Annual Congress 2013

Abstract Number: 126

Publication Number: P2679

Abstract Group: 8.2. Transplantation

Keyword 1: Transplantation **Keyword 2:** Immunosuppression **Keyword 3:** Bronchiolitis

Title: Aerosolized liposomal cyclosporine A for treatment of progressive allograft dysfunction following lung transplantation

Dr. Franziska 1039 Ihle franziska.ihle@med.uni-muenchen.de [1], Prof. Dr Matthias 1040 Griese matthias.griese@med.uni-muenchen.de [2], Dr. Werner 1041 von Wulffen werner.von.wulffen@med.uni-muenchen.de [1], Dr. Rudolf 1042 Hatz rudolf.hatz@med.uni-muenchen.de [3], Prof. Dr Jürgen 1043 Behr juergen.behr@med.uni-muenchen.de [1] and Dr. Claus 1044 Neurohr claus.neurohr@med.uni-muenchen.de [1]. [1] Dep. Int. Med. V, Div. Pulm. Dis., Ludwig-Maximilians-University, Campus Grosshadern, Munich, Germany ; [2] Children's University Hospital, Ludwig-Maximilians-University, Dr Von Haunersches Kinderspital, Munich, Germany and [3] Dep. of Thoracic Surgery, Ludwig-Maximilians-University Munich, Munich, Germany .

Body: Aim: The aim of this study was to evaluate aerosolized liposomal cyclosporine a (LCsA) in lung transplant recipients (LTR) with progressive chronic lung allograft dysfunction (CLAD) after failure of conventional therapy (pulsed steroids, azithromycine, montelucast, extracorporeal photophoresis). Methods: Descriptive data analysis was performed prospectively based on lung function testing. Results: 6 LTR (age 38±11.8 years; 3 male; 4 DLTx; 2 HLTx; 5.7±5.1 years after Tx, BOS 1 n=1; BOS 2 n=1; BOS 3 n=4) received LCsA 10mg twice daily p.i. for 50 days (4-365d) as add-on therapy to tacolimus, mycophenolate mofetil and steroids. Two patients inhaled < one week due to re-Tx and cough/nausea and were excluded from analysis. Of the remaining 4 patients baseline FEV1, FVC and TLC were 1.11±0.21l (34±14%pred.), 1.8±0.4l (51±26%pred.) and 4.53±0.8l (76±19%pred.). Interims analysis after 43±29 days revealed a FEV1 of 1.1±0.5l (34±13%pred.), a FVC of 1.75±0.85l (50±21%pred.) and a TLC of 4.35±0.5l (72±22%pred.) and after 107±122 days a FEV1 of 0.81±0.32l (31±14%pred.), a FVC of 1.52±0.68l (47±25%pred.) and a TLC of 4.26±0.67l (74±25%pred.). Laboratory evaluations showed no systemic LCsA concentration (<30ng/ml), no significant change of creatinine levels and no positive CMV-PCR. One patient died (219d), one patient was re-transplanted (43d) and one patient stopped due to pulmonary infections (57d). Conclusion: This case series of selected, treatment-resistant CLAD patients suggest that the use of LCsA in LTR is safe. The therapeutic potential of LCsA in LTR with CLAD should be investigated in future controlled trials. eFlow® device and LCsA was provided by PARI Pharma GmbH.