**Introduction**: Early postoperative atrial fibrillation (POAF) occurring after lung transplant has been described but the incidence and risk factors for long term recurrence of AF (> 3 months) in patients who develop POAF is not known. The objective of this study is to determine the risk of recurrence and prognosis of POAF in lung transplant patients.

**Methods**: We performed a retrospective study of single and bilateral lung transplant recipients from January 2010 to December 2015. Patients with prior history of AF were excluded. Incidence of POAF was noted. Patients with POAF were followed for recurrent AF and compared with those who did not have long term AF recurrence. Binary logistic regression was used to identify independent predictors of early POAF and for recurrent AF.

**Result**: A total of 207 patients underwent lung transplant with mean age of 57+_12 years, of which 34% (n=71) of patients developed early POAF. Age was the only significant predictor of early POAF (p=0.009). Among these patients, long term recurrent AF was noted in 17% (n=12/71) of patients. Median follow up duration was 60 months (range 16-72 months). Mean age was 61+_8 years with 58% males. Mean EF was 58+_8%. All-cause mortality was higher at 50% in patients with long term recurrent AF as compared to 32% in those without recurrence but did not reach statistical significance (p=0.20). Patients with recurrent AF had higher incidence of CAD (21% vs 8%, p=0.017) and DM (9% vs 0%, p=0.02) based on bivariate analysis.

**Conclusion**: Late recurrent AF in POAF patients is common and is associated with 50% mortality. POAF is not benign and these patients should be followed closely.