Patients With Fibrotic Interstitial Lung Disease Hospitalized for Acute Respiratory Worsening A Large Cohort Analysis

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Abstract

BACKGROUND: Acute respiratory worsening (ARW) requiring hospitalization in patients with fibrotic interstitial lung disease (f-ILD) is common. Little is known about the frequency and implications of ARW in IPF and non-IPF ILD patients hospitalized for acute exacerbation (AE) vs known causes of ARW.

METHODS: All consecutive patients with f-ILD hospitalized with ARW at our institution from 2000 to 2014 were reviewed. ARW was defined as any worsening of respiratory symptoms with new or worsened hypoxemia or hypercapnia within 30 days of admission. Suspected AE was defined using modified 2007 American Thoracic Society/European Respiratory Society criteria. Known causes of ARW were reviewed and collated along with in-hospital and all-cause mortality postdischarge.

RESULTS: A total of 220 patients (100 with IPF and 120 non-IPF) composed 311 admissions for ARW. Suspected AE (SAE) comprised 52% of ARW admissions, followed by infection (20%), and subacute progression of disease (15%). In-hospital mortality was similar in patients with IPF vs patients without (55 vs 45%, P ¼ .18), but worse in suspected AE admission types (OR, 3.1 [1.9-5.14]). One-year survival after last ARW admission for the whole cohort was 22%, despite only 27% of patients presenting with baseline oxygen requirement at admission and a mean admission Charlson Comorbidity Index score of 5.4 (expected 1-year survival, 89%). Survival after discharge was similar between SAE and secondary ARW admission types in both IPF and non-IPF patients.

CONCLUSIONS: Among patients with f-ILD, hospitalization for ARW appears associated with significant in-hospital and postdischarge mortality regardless of underlying fibrotic lung disease or non-AE cause of acute respiratory decline.