Pirfenidone for Bleomycin Induced Lung Toxicity

Suliman Alamro1, Anna Selvaggio1, Paul Noble2 and Zhou Zhang1

1Division of Pulmonary and Critical Care Medicine, Cedars-Sinai Medical Center, 8700 Beverly Blvd, Los Angeles, CA 90048, USA
2Department of Medicine, Women’s Guild Lung Institute, Cedars-Sinai Medical Center, USA

64 years old male with hodgkins lymphoma was receiving chemotherapy containing bleomycin developed cough and dyspnea after his 8th cycle. He underwent a comprehensive evaluation including PFTs which showed His FVC was 72% of predicted, TLC 83% and DLCO 52% and no desaturation on ambulation. Chest CT showed peripheral reticular opacities with some area of consolidation but also honeycombing involving the lower lung zones greater that the upper lung zones. He was initially started on prednisone at 80 mg daily in addition to gleevec with symptomatic improvement. However, his symptoms recurred after a trip to San Antonio and he was admitted to the hospital where CTA showed a Diffuse and severe interstitial fibrosis and alveolitis most consistent with bleomycin toxicity in an addition to left lower lobe pulmonary embolus. A transbronchial biopsy revealed patchy organizing pneumonia and intra alveolar macrophages (Figure 1). The patient was treated with high dose steroids in addition to anti-coagulation for his PE where his symptoms improved and was discharged. On a subsequent follow up, his PFTs showed an FVC 55%, TLC of 62% and DLCO of 27%. Repeat chest CT showed a UIP pattern. The decision was made to start him on pirfenidone. He had significant improvement in his symptoms and his repeat PFT after three months of therapy showed an FVC OF 69%, TLC 76% and a DLCO of 43%. He was able to walk 393 meters with no desaturation. He was weaned off steroids and after 6 months of therapy his PFTs showed normal lung volumes with a DLCO of 48% (Figure 2).

Figure 1: Before pirfenidone.

Figure 2: After pirfenidone.