Catastrophic Pulmonary Alveolar Hemorrhage Complicating Warfarin Therapy

A 60-year-old male was admitted with sudden onset of fever, cough, severe breathlessness and hemoptysis. He was taking warfarin 5mg daily following mitral valve replacement 20 years earlier, for rheumatic mitral valve disease. His follow-up was irregular. Physical examination revealed: respiratory rate of 46/ min, pulse 108 / min, blood pressure 110/70 mmHg, temperature 39.2°C, prosthetic valve sounds on cardiac auscultation and coarse crackles in the lung fields. Investigation showed: Hb 8.2 gm/ dL, TLC 14500/ mm³, P 82%, L 18% and PCV 32%. Urine 30-40 RBC's/ HPF. ECG sinus tachycardia. X-ray chest showed bilateral fluffy opacities (Fig. 1). The prothrombin time was 8 minutes (control 13 sec). Oxygen saturation 60% while inhaling 100% oxygen. Other hematological and biochemical laboratory values were normal. CT-scan of the thorax revealed diffuse pulmonary alveolar hemorrhage (Fig. 2). The patient died within 2 hours of hospitalization despite treatment with transfusions with multiple units of fresh frozen plasma and ventilatory support.

Diffuse pulmonary alveolar hemorrhage represents a medical emergency, characterized by widespread hemorrhage from the pulmonary microvasculature and often presents with the clinical triad of hemoptysis, anemia and diffuse alveolar consolidation. The causes of diffuse alveolar hemorrhage, include vasculitides, Goodpasture’s syndrome, SLE, leptospirosis hantavirus, and rarely anticoagulant therapy. Diffuse pulmonary alveolar hemorrhage complicating warfarin therapy is associated with a high mortality rate.

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Received: 24.8.2007; Accepted: 28.11.2007