LETTER TO THE EDITOR

Re: Alemtuzumab-Induced Resolution of Pulmonary Noninfectious Complications in a Patient with Chronic Graft-versus-Host Disease

Despite recent significant advances in the field of hematopoietic stem cell transplantation (HSCT), there has been little change in the incidence, morbidity, and mortality of chronic graft-versus-host disease (cGVHD). Pulmonary complications occur in approximately 25% of HSCT recipients and account for increased mortality and morbidity [1]. Approximately 40% of these cases are noninfectious, most of them related to GVHD [1]. Several months ago, we reported a 19-year-old patient with extensive cutaneous GVHD affecting 100% of her body surface that had been treated unsuccessfully for 9 months with steroids, cyclosporine-A, sirolimus, tacrolimus, mycophenolate mofetil, infliximab, and rituximab. Treatment was started with alemtuzumab, 10 mg/day s.c. for 6 consecutive days every 4 weeks. Her skin condition resolved, with all cutaneous ulcers disappearing [2]. Subsequently, the dosage was decreased to 10 mg every 10 days. The patient remained well for the next 20 months. But 6 weeks after alemtuzumab treatment was interrupted because of a dental procedure, she developed exertional dyspnea, and then was admitted to the hospital with severe hypoxemia. A comprehensive laboratory workup failed to reveal infectious complications, despite the radiographic findings in both lungs (Figure 1A). The patient refused a pulmonary biopsy. She was treated with i.v. steroids, wide-spectrum antibiotics, and antiviral agents without improvement. When an endotracheal tube was about to be inserted, she was restarted on alemtuzumab, 10 mg/day s.c. Her pulmonary condition improved significantly, and pulmonary infiltrates resolved (Figure 1B). She was able to return home 7 days later with a Karnofsky score of 80%. Her respiratory condition stabilized over the next 2 months, with an alemtuzumab dosage of 10 mg every 10 days.

There have been reports on the use of alemtuzumab in treating acute GVHD (aGVHD) [3], but very few reports on its use in treating chronic GVHD [2]. Although alemtuzumab has been used to successfully treat bronchiolitis obliterans syndrome after human lung transplantation [4], to the best of our knowledge, there are no reports of its use in treating late noninfectious pulmonary complications after HSCT. Despite the fact that we were unable to prove that GVHD was responsible for the lung injury in this patient and could not define the type of pulmonary damage that she sustained, the alemtuzumab treatment clearly improved this patient’s pulmonary condition. Studies

Figure 1. The initial chest radiograph showed diffuse reticulonodular areas of increased density in both lungs as in viral pneumonia. A, Chest radiograph obtained 10 days later showing disease progression, with diffuse patchy consolidation and large nonnecrotic nodules in both lungs; no hilar or mediastinal adenopathy can be seen. B, Complete resolution of all lung lesions with no restrictive pattern 20 days after starting alemtuzumab treatment.
are needed to assess the efficacy of alemtuzumab in treating human GVHD.

REFERENCES


Guillermo J. Ruiz-Arguelles, MD, FACP, FRCP(Glasg)
Centro de Hematología y Medicina Interna de Puebla, Clínica Ruiz, Puebla, México

Guillermo J. Ruiz-Delgado, MD
Centro de Hematología y Medicina Interna de Puebla, Clínica Ruiz, Puebla, México

Valdemar Moreno-Ford, MD
Unidad Tomográfica de Puebla, Clínica Ruiz, Puebla, México