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CASE REPORT

Allogeneic Hematopoietic Stem Cell Transplant (Hsct) in Mantle Cell Lymphoma: 4 Years of Complete Remission

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Introduction

According to the World Health Organization, the mantle cell lymphoma is a lymphoma subtype characterized by the translocation t (11;14) resulting in overexpression of the protein cyclin D1+. The clinical presentation typically includes extranodal, particularly bone marrow and gastrointestinal tract [1]. Of all B cell lymphomas, it has the worst prognosis and survival, around 3 to 5 years. Conventional chemotherapy is not curative but often obtains remission (60% and 90%). Intensive treatment regimens including autologous and allogeneic seems to improve the results, but the age and clinical status should be considered when choosing the best therapy [1].

Case Report

Male patient, 44-years-old, diagnosed with mantle lymphoma through axillary biopsy (cyclin D1+) in August 2011, IVBS staging. Held four R-Hyper-CVAD cycles with complete response confirmed by PETCT in 03/2012, but maintained with infiltration in bone marrow biopsy. At this time, choice was to perform an related allgoneic hematopoietic stem cell transplantation (HSCT), from peripheral stem cell source, ABO compatible with reduced-intensity conditioning regimen (fludarabine + 200 cg TBI). We used the usual regimen of cyclosporine and mycophenolate for the prophylaxis of graft versus host disease (GVHD). The patient evaluate clinically well during transplant, with febrile neutropenia treated with antibiotic. At D + 75, presented acute GVHD grade IV gastrointestinal/liver, confirmed by gastric antral biopsy associated with cytomegalovirus (CMV-PCR). Therapy was performed with methylprednisolone 2 mg/kg/day and ganciclovir 10 mg/kg/day associated to parenteral nutrition. After three weeks, he showed excellent response. He was maintained on prophylactic ganciclovirdose for three extra weeks. At D + 150, after suspension of imussupression, the patient evolved again with loss of appetite, nauseas and vomiting (upper gut syndrome) and diarrhea and signs of chronic GVHD (lichen planus), being held in alternating doses of cyclosporin 0.5 ml twice a day and with prednisone 10 mg/day to the present day, since he reactivates symptoms of liver GVHD when the attempted withdrawal of immunosuppressants. Yet, it was identified by peripheral blood immunophenotyping, a persistent non-clonal lymphocytosis (around 5,000 to 6,000). This patient presents PET-CT performed on D + 1 year (April 2013), D + 2 year (April 2014), D + 3 year (April 2015), D + 4 year (April 2016) without any evidence of disease activity.

Discussion

Patients with mantle lymphoma are usually diagnosed with 60 to 65 years, with generalized lymphadenopathy mostly with advanced Ann Arbor staging and frequent extranodal involvement. The presence of the skin engagement is associated with disseminated disease - blastic variant [2]. The involvement of the central nervous system (CNS) is rare at diagnosis, but the disease in the CNS relapse was reported in 4 to 22% by retrospectives series [3]. The clinical course is usually indolent or moderately aggressive at diagnosis, but over

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time the disease becomes invariably aggressive and refractory to chemotherapy. Best chemotherapies consist of R-CHOP, R-Hyper-CVAD, BOP [4]. A recent study evaluated 202 patients with refractory mantle lymphoma, who underwent allogeneic transplantation, and evaluated that 25% of patients achieved durable remission post-transplant (3 years), which implies an important role of graft versus linfoma effect [5].

Despite intensive chemotherapy regimens followed or not by autologous HSCT, the clinical course of the mantle lymphoma it is still characterized by relapses. Yet, this is an incurable disease. The impact of allogeneic emerged in the late 90's when the myeloablative allogeneic potentially brought some response in previously refractory patients, but the toxicity and mortality of this conditioning regimen was very high and was limited to its use mainly in elderly patients [6]. In this sense, the reduced intensity conditioning regimen showed lower toxicity and lower mortality rates associated with the transplant, making it a better alternative for this patient population. At the time, the reduced intensity allogeneic system should be considered a therapeutic option for patients with mantle cell lymphoma [6].

Conclusion

Allogeneic HSCT with reduced intensity regimen is presented as an alternative therapy in patients with mantle cell lymphoma refractory to chemotherapy and the patient reported has a durable post-transplant remission rate (4 years).

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