ASCT as salvage therapy in WM

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Waldenström macroglobulinemia is a highly chemosensitive lymphoplasmacytic lymphoma with response rates of 90% to first-line chemotherapy. The fraction of patients undergoing stem cell transplant for this disorder appears to be lower than that of patients with multiple myeloma. The indolent nature and favorable genetic profile should make Waldenström an ideal disorder for autologous stem cell transplant, with high response rates that are durable. We review the literature on autologous and allogeneic transplants for Waldenström macroglobulinemia and conclude that autologous transplant is effective and underutilized in the management of this disorder. Allogeneic transplant should be considered investigational and used only in the context of a clinical trial or when other chemotherapeutic options have been exhausted. The gene transcription profile of Waldenström macroglobulinemia more closely resembles that of chronic lymphatic leukemia than that of multiple myeloma. The value of stem cell transplant for chronic lymphatic leukemia is well documented. Waldenström macroglobulinemia lacks the typical adverse cytogenetics that are associated with diseases in which autologous stem cell transplant is regularly contemplated such as multiple myeloma. At diagnosis, 17p deletion is distinctly uncommon. Waldenström macroglobulinemia is a far less kinetically active malignancy than multiple myeloma. The favorable genetics of macroglobulinemia and the low proliferative rate suggest that a single course of myeloablative therapy can produce a deep and durable response since the cells lack drug resistance mutations and are unlikely to regrow in the near term. It appears that autologous transplant can be performed for Waldenström macroglobulinemia with very low nonrelapse mortality in patients as old as 75 years. Stem cell collection after extensive prior therapy is a challenge and should not be delayed until patients have received 3 prior lines of therapy. These therapeutic regimens often contain purine nucleoside analogs that can impair the mobilization of stem cells or extensive exposure to alkylating agents that can cause chromosomal damage and lead to myelodysplasia. We do not believe, given the excellent outcomes with standard induction chemotherapy, that autologous transplant can be recommended as first-line therapy for Waldenström macroglobulinemia. However, we do believe in the concept of "rainy day" collection after patients have achieved first response, and a minimal tumor mass would allow effective collection of stem cells without the need for mobilizing chemotherapy or plerixafor. These cells can be cryopreserved for use at the time of first progression. It is a reasonable expectation that autologous transplant can be performed in patients with relapsed disease without testing for chemotherapy sensitivity, as is required in intermediate-grade lymphomas. Median relapse-free survival of 3.5 to 4 years would be expected on the basis of published series, and this could be achieved at a cost lower than that associated with salvage therapies with novel agents, including bortezomib and bendamustine. Therefore, we believe that it is appropriate for patients in first plateau who are under the age of 70 years to be considered for collection and storage of stem cells for future use.