Optimal timing for stem cell transplantation (SCT) in Waldenstrom's Macroglobulinemia (WM)

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WM is a rare B-cell lymphoproliferative disorder with a median age at diagnosis of 74 and 53% of patients aged 65 years or younger. The medial survival varies from 2 years for the high risk to 5 years for the intermediate risk and to more than 12 years for the low risk disease. Advances in the treatment of the disease have achieved better overall outcomes and more prolong responses.

The role of SCT has been established in a number of other haematological malignancies, but the place and timing of this approach in the treatment algorithm of WM disease has not yet been defined. Conducting a prospective clinical trial to directly compare the outcome after conventional therapies with either autologous (ASCT) or allogeneic SCT (Allo-SCT) is difficult due to the "indolent" nature, the rarity of the disease and the advanced presentation age. The biggest challenges remain the decision not only of which patients are eligible for SCT but when in their disease course SCT should be offered.

Promising results have been observed mainly from retrospective studies. The EBMT LWP has recently updated the retrospective European experience on the role of the ASCT in 615 and of the Allo-SCT in 267 WM patients. The results showed that, overall, progression free survival and relapse rate were significantly superior for responding WM patients receiving the ASCT early after diagnosis and after maximum response was achieved. From the Allo-SCT group EBMT analysis, 72% of the patients underwent Allo-SCT later in the course of the disease, 21% had primary refractory disease and 41% had multiple prior line therapies. The disease free survival at 3 years was 65% and this was significantly better for responding patients with good performance status treated earlier. Similarly the overall survival at 3 years was 62% and the incidence of relapse was low. However, Allo-SCT was associated with high toxicity that was mainly related to graft versus host disease reaction (GVHD) and this approach should always take into account the potential risks and benefits.

It is feasible to employ SCT strategy in the management of the disease since, there are younger patients, there is a high risk group of patients with dismal prognosis, the disease still remains incurable and following multiple relapses it becomes refractory. First line and salvage therapies should avoid stem cell toxicity to enable potentially eligible selected group of patients for SCT to proceed to this treatment option.