

## **Bone marrow transplantation resets the clock in patients with Chronic Lymphocytic Leukemia**

Chronic Lymphocytic Leukemia (CLL) accounts for about one third of all of leukemias. In the United States 15,000 patients are diagnosed with and 4,500 patients die of CLL every year. CLL is a diverse disease. Some patients will never need therapy, yet others experience an aggressive and they may die within a few months from diagnosis.

Until recently, bone marrow stem cell transplantation was the only treatment that could cure CLL. However, because stem cell transplantation is a risky procedure with problematic side effects, this procedure has been typically reserved for patients who failed several other lines of treatments.

The investigators identified 50 patients with CLL who underwent stem cell transplantation and in whom transplant has failed. These "transplant failure" patients were heavily pretreated with intensive anti-cancer regimens including chemotherapy and immunotherapy. Because stem-cell transplantation was considered the last resort for these patients it was assumed that the patients will die shortly after transplant failure. Unexpectedly, these patients lived on average 3 years after transplantation and some patients lived 10 years or more. Some of the "transplant failure" patients never required additional therapy and although their CLL never disappeared, they were able to return to normal life. Other "transplant failure" patients responded sometime to treatments they had failed before transplantation whereas others received and responded to that were not unavailable prior to transplant. However this relatively good outcome was restricted to patients with CLL. Those patients who developed a form of lymphoma called Richters' transformation had a poor outcome.

Although new effective drugs are now available for patients with CLL, most of these drugs do not cure the disease and stem cell transplantation remains a good curable option. Unlike patients with acute leukemia in whom transplantation failure is associated with poor outcome, in CLL patients, bone marrow transplantation resets the clock. If bone marrow transplantation fails, CLL patients may still respond to treatments and experience a prolonged life span.

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### **Publication**

[Outcomes of Patients With Chronic Lymphocytic Leukemia and Richter's Transformation After Transplantation Failure.](#)

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