SUCCESSFUL HAPLOIDENTIC BONE MARROW TRANSPLANTATION WITH INOTUZUMAB OZOGAMICIN IN PATIENT WITH RELAPSED AND RESISTANT B CELL ACUTE LYMPHOBLASTIC LEUKEMIA

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Background: Although chemotherapeutic (CT) agents that used in the treatment of acute lymphoblastic leukemia (ALL) increase survival, the results are still weak. Inotuzumab ozogamicin is an anti-CD 22 monoclonal antibody and it has the potential to reduce the overall toxicity of intensive regimens for ALL, as well as to possibly increase the number of patients who may achieve a state of minimal residual disease.

Aims: We aimed to present a case of successful haploidentic bone marrow transplantation in a recurrent B-ALL patient who was in remission with inotuzumab ozogamicin.

Methods: Case description: 26-year-old male patient was diagnosed B-ALL in 2017. After CT was started, maintenance treatment was continued. In the fifth month of treatment, FLAG was started because of recurrence was seen on 5% blast detection in peripheral blood. In 2018, inotuzumab ozogamicin was started and six cures were completed. In September 2018, He had gone Haploidentical bone marrow transplantation from his sibling donor (8/10) with Defibrotid prophylaxis for Veno-Occlusive Disease (VOD). He engrafted successfully and chimerism was 99 % in 30th days of transplantation. He is 60th day of transplantation and in a remission.

Results: Bone marrow transplantation cannot be performed since the complete response cannot be achieved in patients with relapse and resistant B-ALL. In these patients, new therapies targeting malignant lymphoblasts are needed. Inotuzumab ozogamicin is a monoclonal antibody drug conjugate that targets CD22 antigen on malignant lymphoblasts. In many studies. However, monoclonal antibody drug conjugates have been shown to be associated with VOD's. For this purpose, we used Defibrotid to protect from VOD.

Summary/Conclusion: Targeted molecular therapy and new regimens are needed in relapse and resistant patients. At this point, Inotuzumab ozogamycin is an anti-CD-22 monoclonal antibody, as in our case, it provides remission in recurrent and resistant B-ALL patients and allows patients to complete their treatment with an allogeneic transplantation.