ALLOGENEIC STEM CELL TRANSPLANTATION IN HODGKIN’S DISEASE STAGE IV WITH RELAPSE AFTER AUTOLOGOUS STEM CELL TRANSPLANTATION

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Keywords: Hodgkin disease, allogenic transplant, stem cell

Abstract: We present the case of a young patient with Hodgkin disease who benefited from an allogeneic stem cell transplantation from a compatible sibling. 3 years prior the allogeneic transplant, the patient received an autologus hematopoietic stem cell transplant after which it relapsed. Upon admission in our clinic, he was in stage IVB with high fever, abdominal masses and adenopathies on both sides of the diaphragm. We administered 2 DHAP salvage courses with relatively good response, with the disappearance of the B symptoms and the decreasing of the volume of the adenopathies. Having in view the significant residual disease we decided to administer a miniBEAM protocol before the allogeneic transplantation. We present the evolution of the case, the complications and the results obtained.

CASE REPORT

We present the case of a 24-year old male patient with Hodgkin’s disease, nodular sclerosis histology type diagnosed in childhood at 14. Initially, he underwent 6 courses of BEACOPP, the last one in 2006. After the treatment, he was lost for follow up because he did not present for check up. The first relapse appeared in 2008 and manifested in pulmonary, retroperitoneal and inguinal adenopathies with compression followed by the lymphoedema of his right leg. Chemotherapy was started with partial response and complicated with the thrombosis of the right jugular vein.

In 2010, the patient was referred to our transplant centre for mobilization and collection of stem cells for autologous transplantation. The mobilizing treatment consisted of chemotherapy, the DHAP protocol followed by the administration of granulocyte growth factors (G-CSF). We obtained a number of 9.5 X10^6/kg CD34+ cells.

For pre-transplant conditioning treatment, we used the standard BEAM protocol. (BCNU 300 mg/m2 day -6, Etoposid 400-800 mg/m2 days -5,-4,-3,-2, Ara-C 800-1600 mg/m2 day -5,-4,-3,-2, Melphalan 140 mg/m2 day -1).

In the period of aplasia, he had a urinary tract infection with Pseudomonas aeruginosa and a bronchopneumonia caused by E. Coli with good response to the antibiotic treatment. The evolution of the case was favourable. The engraftment for granulocytes appeared on day 14 post-transplant and for platelets on day 21.

The patient was in remission until April 2012, when he relapsed for the second time. The relapse manifested in the reappearance of B symptoms (fever, pruritus, perspiration, loss

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Article received on 04.11.2012 and accepted for publication on 19.12.2012
ACTA MEDICA TRANSILVANICA March 2013;2(1):222-223
of weight), dyspnoea, generalized adenopathies and lymphoedema of the right leg.

On the CT scan, we can observe the presence of mediastinal adenopathies, pulmonary nodules in the left superior segment, masses of adenopathies in the abdomen and retroperitoneum with a size up to 12 cm.

Figure no. 1. CT scan at second relapse post-autologous transplantation

Chemotherapy was restarted and we applied the salvage treatment using the DHAP protocol. The response to the treatment was relatively favourable with the shrinking of the adenopathies. Due to the presence of a still considerable residual disease, we decided to use a new method of treatment recently introduced in the treatment of relapsed lymphomas. It consisted in chemotherapy using the protocol miniBEAM for debulking pre conditioning regimen for allogeneic transplantation.

The MiniBEAM protocol contains the following doses: BCNU 60 mg/m² day 1, Etopozid 200 mg/m² days 2-6, ARA-C 100 mg/m² days 2-6, Melphalan 20 mg/m² day 7.

Considering the evolution of the case, the multiple relapses including the relapse post autologous transplantation, we decided to proceed to the allogeneic stem cell transplantation, the patient having an HLA compatible sister. The donor was not an ideal one being female and with 3 childbirths before donating the patient having an HLA compatible sister. The donor was not an ideal one being female and with 3 childbirths before donating

The patient presented the following complications in the period of aplasia: grade 2 mucositis, oesophagitis with and tacrolimus. Due to the presence of a still considerable residual disease, this being a recently new introduced treatment of lymphomas. This protocol has to be followed by an allogeneic stem cell transplantation in order to prevent a new relapse.

Another conclusion is that in the case of patients with lymphomas with several relapses post-chemotherapy including relapse post-autologous transplantation, the allogeneic transplant preceded by miniBEAM treatment protocol for residual disease is a new and feasible method of treatment with curative intent, which in spite of its difficulties can lead to the cure of these extremely difficult cases.

REFERENCES