

The Current Status of Bone Marrow Transplantation in Treatment of Patients with Hemophilia

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Background

Bone marrow transplantation (BMT) is nowadays used in various hematological disorders including leukemias. Hemophilia A & B are sex linked bleeding disorders in which there are various genetic abnormalities in factor VIII & IX genes. Among various hematological disorders, bleeding disorders mainly hemophilia in now widely treated using plasma derived and recombinant factor VIII & IX concentrates. Day to day transfusion of coagulation factor VIII & IX in current lifelong disorder is a burden for the patients and decrease their quality of life. Although infection of coagulation products with blood-borne viruses that was major concern in treatment of hemophilia has been eliminated nearly complete at the present time, but appearance of factor VIII & IX inhibitors are huge burdens in treatment of hemophilia for both clinicians and patients. In this day and age BMT has gathered new insight and acceptable treatment for many hematological and non-hematological disorders. If BMT will be successful in treatment of hemophilia, it will improve quality of life (by nearly permanent treatment without necessary of daily treatment) and decrease mortality rate (by providing continuous coagulation factor level in blood system). The aim of current study was to determine current role of BMT in treatment of hemophilia A & B and evaluate current usage of BMT for treatment of hemophilia A & B.

Methods

literature review was done using following key words: “bone marrow transplantation & hemophilia”, “stem cells transplantation & hemophilia”, BMT & hemophilia” in PubMed search engine without any time restriction. In addition the literature search limited to English languages papers.

Results

After complete search, abstracts of 24 original papers obtained and among them full text of 18 full text of papers accessed. The review of current papers showed that although BMT has been used in a rare cases with hemophilia (mainly hemophilia with another blood disorder), it does not use commonly and currently in treatment of patients with hemophilia A at present time. Literature review showed that scientists now focused on bone marrow transplantation in mouse model of hemophilia.

Conclusion

The literature review showed that BMT at present time is not common medical procedure and it is now in animal models' stage.

Key Words: Bone marrow transplantation, Hemophilia, Treatment.

Poster Presentation

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