A RETROSPECTIVE STUDY ON THE MORTALITY OF BONE MARROW TRANSPLANT RECIPIENTS WITH SEVERE ACUTE KIDNEY INJURY

Archana Rao, Andrew Fenves, Joseph Fay, Baylor University Medical Center, Department of Oncology and Division of Nephrology, Dallas, TX, USA.

Acute kidney injury (AKI) in hospitalized patients carries a high mortality. This is particularly true in patients who have received a bone marrow transplant (BMT), and subsequently require renal replacement therapy (RRT). We retrospectively studied our experience over a 39 months period at Baylor University Medical Center (2004-2007).

We collected data on patients in the BMT unit over this time period that required hemodialysis (HD) therapy for AKI. Institutional IRB approval was obtained. 685 patients underwent BMT for various indications. 20 patients with AKI severe enough to require RRT were identified(2.9%). 6 of these patients had acute myeloid leukemia, 7 had Non- Hodgkin's lymphoma, 3 acute lymphoblastic leukemia, 1 chronic lymphocytic leukemia, 1 myelodysplastic syndrome,1 systemic mastocytosis, 1 refractory plasma cell leukemia. In addition, 7 of these patients also developed graft versus host disease and 6 of them had liver involvement.

Fifteen (75%) of the patients died within 30 days of developing AKI severe enough to require HD. The 5 patients who recovered were discharged from the hospital.Subsequently, 2 of them died at 2 and 8 months respectively. Multiorgan failure was cited as a cause of death in all those patients who died. The 3 surviving patients had Non-Hodgkin's lymphoma, acute lymphoblastic leukemia and acute myeloid leukemia.

BMT patients are a high risk category of patients in general. Our study demonstrates a 30 day mortality in these patients of 75%. In addition, the few survivors continue to have a subsequent high mortality within the next 8 months. This data may be helpful in selecting patients for future prospective studies examining AKI.