Multiple drugs

S

Various toxicities: 18 case reports

In a retrospective survey of patients with hematopoietic stem cell transplantations (HSCT) following solid organ transplantation (SOT), 18 patients were described including 5 patients in 1–2 decades, 8 adult patients, one child and one three-year-old patient [10 male patients and 8 female patients; *not all ages stated*] were described, who developed various malignancies, aplastic anaemia, infections, or experienced relapse of malignancies during treatment with antithymocyte-globulin, busulfan, ciclosporin [cyclosporine], cyclophosphamide, cytarabine, etoposide, everolimus, fludarabine, melphalan, methotrexate, methylprednisolone, mizoribine, mycophenolate-mofetil, prednisolone, ranimustine, tacrolimus, thiotepa or topotecan [*routes, dosages and durations of treatments to reaction onsets not stated; not all outcomes stated*].

The patients had a significant history of hepatoblastoma, congenital biliary atresia, veno-occlusive disease, fulminant hepatitis, chronic glomerulonephritis, membranoproliferative glomerulonephritis, nephrotic syndrome, antineutrophil cytoplasmic antibodies -associated glomerulonephritis, chronic kidney disease or IgA nephropathy and had undergone SOT of liver or kidney. Following the SOT, the patients received conditioning regimen with melphalan, thiotepa, cyclophosphamide, topotecan, ranimustine, etoposide, cytarabine, prednisolone, everolimus, ciclosporin, tacrolimus, methylprednisolone or mizoribine. Seventeen of the 18 patients developed malignancies or relapsed malignancies including relapsed hepatoblastoma (n=4), diffuse large b cell lymphoma with multiple myeloma (n=1), multiple myeloma (n=1), myelogenous leukaemia (n=2), aplastic anaemia (n=3), myelodysplastic syndrome (n=3), diffuse large b cell lymphoma (n=1), adult t cell leukaemia (n=1) or mixed phenotype acute leukaemia (n=1). One of these patients had a history of acute leukemia prior to SOT and developed bone marrow failure [aetiology unknown]. Initially, five patients underwent Auto-HSCT and eight patients underwent Allo-HSCT. Following the HSCT, the patients received GVHD prophylaxis with tacrolimus, methotrexate, methylprednisolone, mycophenolate-mofetil, ciclosporin or antithymocyte-globulin and conditioning regimen with fludarabine, melphalan, busulfan or cyclophosphamide. Four of the 18 patients underwent HSCT twice. Twelve of the 18 patients developed infections including sepsis (pathogenic species unknown; 4 patients), sepsis (Staphylococcus aureus) with Cystitis (BK virus and adenovirus; 1 patient), sepsis (Psuedomonas aeruginosa) with fungal pneumonia (1 patient), fungal pneumonitis (1 patient), reactivation of hepatitis B virus (1 patient), sepsis (Enterococcus faecium) with fungal pneumonia (1 patient), sepsis (Trichosporon asahii ; 1 patient), cytomegalovirus retinitis (1 patient) or fungal pneumonia (Aspergillus famigatus; 1 patient). Of these 12 patients, infections improved in 4 patients, in 1 patient it exacerbated and in 2 patients it was stable. In the one patient with sepsis (Enterococcus faecium) and fungal pneumonia, the sepsis improved, but fungal pneumonia exacerbated leading to interstitial pneumonia and acute respiratory distress syndrome. In 12 of the 18 patients, solid organ failure was observed, but it was secondary to infections in three patients, in one patient due to unspecified drugs and in one patient due to relapsed hepatoblastoma. Results of HSCT were complete remission in 10 patients, not complete remission in 4 patients and recovery in 4 patients. Of the 18 patients, 9 patients died due to malignancy or relapsed malignancy, 1 patient died of acute respiratory distress syndrome, 1 patient died of idiopathic pneumonitis syndrome and acute respiratory distress syndrome and 7 patients were alive.

Shinohara A, et al. Hematopoietic Stem Cell Transplantation in Solid Organ Recipients with Emphasis on Transplant Complications: A Nationwide Retrospective Survey on Behalf of the Japan Society for Hematopoietic Stem Cell Transplantation Transplant Complications Working Group. Biology of Blood and Marrow Transplantation 26: 66-75, No. 1, Jan 2020. Available from: URL: http://doi.org/10.1016/j.bbmt.2019.08.021

803463989