Conclusion: Levels of PC, especially IL-5, EDN and eotaxin may help in the differential diagnosis of AI phenomena (DRESS, GvHD and ES) following therapy with novel anti-myeloma agents and auto-HCT. These diagnostic tests may enable directed therapies for pts with DRESS and GvHD. More effective therapies for DRESS are needed.

542

ATTEMPTED STEM CELL TRANSPLANT FOR APLASTIC ANEMIA SECONDARY TO GVHD FROM A CADAVERIC RENAL TRANSPLANT

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Introduction: Graft versus Host Disease (GVHD) is a common complication encountered with hematopoetic stem cell (HSC) transplantation, however it is a rare complication of solid organ transplantation or transfusion. We report a case of GVHD from a renal allograft that was not detected until the patient developed aplastic anemia.

Case Report: A 56-year-old male with end stage renal disease received a 5 of 6 antigen-mismatch cadaveric donor renal allograft. On post-operative day (POD) 58 a scaly puritic skin rash developed and was treated with topical steroids. Bone marrow biopsies revealed trilineage aplasia with < 1% cellularity and STR analysis confirmed chimerism with 83% of the blood mononuclear cells (MNCs) originating from the kidney donor. In addition, the patient was treated for CMV viremia, *enterococcus faecalis* and *stenotrophomonas maltophilia* bacteremia, and HSV stomatitis. On POD 118 the patient received HSC transplantation with his HLA-matched sibling. The patient experienced acute renal insufficiency requiring intermittent dialysis, ilius with abdominal distension requiring nasogastric suctioning and bowel rest, and on POD 135 developed respiratory distress necessitating intubation and ventillator support and the patient expired after two episodes of cardiac arrest due to overwhelming sepsis.

Discussion: The severity of GVHD varies depending on multiple factors, and is particularly related to the type of allograft transplanted. Transfusion associated GVHD (TA-GVHD) is well recognized to have a remarkably higher overall mortality than GVHD due to HSC transplantation. GVHD secondary to solid organ transplantation is most often associated with liver and intestinal transplants with an incidence of about 1% and mortality reports ranging from 50-75%. GVHD due to passenger lymphocytes in solid organ transplants have much higher mortality rates than GVHD from HSC transplantation and almost approaches the mortality rate of TA-GVHD (> 90%). The high mortality rates of TA-GVHD and solid organ transplant associated GVHD are due to the complications of aplastic anemia, i.e., infection and bleeding. Patients should be monitored for potential GVHD after renal transplantation to allow earlier recognition and potential interventions to attempt to improve the mortality rates from this complication.

543

HIGH INCIDENCE OF HYPERACUTE GVHD (HAGVHD) IN PATIENTS (PTS) UNDERGOING UNRELATED DONOR ALLOGENEIC HEMATOPOEITIC STEM CELL TRANSPLANTATION (URALLOHSCT) RECEIVING A NON-METHOTREXATE (NON-MTX) CONTAINING REGIMEN

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Background: HaGVHD is a syndrome characterized by unexplained fevers, diarrhea, skin rash and hepatic toxicity that occurs before engraftment (less than 14 days) in alloHSCT pts and is associated with significant morbidity and mortality. We describe the incidence and clinical characteristics of URalloHSCT recipients in our institution that developed this complication after we adopted a new policy in GVHD prophylaxis that aborted the use of MTX.

Patients and Methods: Data from 14 consecutive URalloHSCT pts over a 1 year period were reviewed. 9 pts with a diagnosis of haGVHD were identified based on the clinical criteria of nonbacteremic fever with rapid development of skin rash involving > 25% BSA or early onset diarrhea or worsening hepatic function without an identifiable cause prior to engraftment. Demographics, indication for transplantation, type and sex of donor, conditioning regimen (CR), GVHD prophylaxis, engraftment day and clinical features of haGVHD were identified and collected.

Results: 14 pts underwent an URalloHSCT at our institution from 2009-10. 9 (64.28%) pts (average age 42.89 yrs, range 21-63 yrs) were diagnosed with haGVHD per clinical criteria. 6 (66.7%) pts were male and 3(33.3%) pts female. Indications for transplant included relapsed/ refractory non Hodgkin lymphoma, Hodgkin lymphoma, acute myelogenous leukemia, acute lymphocytic leukemia and therapy related myelodysplastic syndrome. 8 (88.9%) pts received a myeloablative CR. 4 (44.4%) pts had a HLA mismatched and 6 (66.6%) pts had a sex mismatched donor. All pts had received GVHD prophylaxis with a calcineurin inhibitor combination (7/9 Tacrolimus/Sirolimus and 2/9 cyclosporine/mycophenolate mofetil) without methotrexate with 5 pts receiving ATG in addition. Fever developed at median +5.11 days (range 1-11days), diarrhea developed on median +2.7 days (range 1-4 days) after stem cell infusion.

Conclusions: We conclude that utilizing a non-methtrexate containing GVHD prophylaxis regimen in the unrelated allogeneic hematopoietic stem cell transplantation setting is associated with a high incidence of hyperacute GVHD. This maybe attributable to the absence of methotrexate with increased risk conferred by the myeloablative conditioning regimen and mismatched HLA and sex of donors. The addition of ATG did not confer any benefit. Therefore a non-methotrexate containing GVHD prophylaxis regimen in this patient population should be used cautiously outside of a clinical trial.

544

DERMATOLOGY CONSULTATION FOR CUTANEOUS COMPLICATIONS OF HEMATOPOIETIC STEM CELL TRANSPLANTATION

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Background: The acute onset of a skin eruption early in the post-transplant course of the hematopoietic stem cell transplant (HSCT) patient is challenging due to the clinical similarity of eruptions that are common in this population. These include of morbilliform drug eruptions, viral exanthema, eruption of lymphocyte recovery, erythema multiforme, toxic erythema of chemotherapy, and acute graft-versus-host disease (GVHD). We aimed to identify cutaneous eruptions in HSCT patients in the early post-transplant period, and the incidence of dermatologic consultation, along with the utility of skin biopsies and whether a change in management resulted from the consultation.

Methods: A retrospective chart review was performed on patients at Northwestern Memorial Hospital who underwent their first allogenic or autologous HSCT in 2009. Information collected included incidence and presentation of cutaneous complications (including GVHD), as well as frequency and outcome of dermatologic consultation (including changes in patient management as a result of consultation).

Results: We found 220 patients who received a HSCT in 2009. To date, 126 (80 autologous, 46 allogeneic) of these have been analyzed. Preliminary data shows that 50/126 (39.7%) patients had cutaneous complications in the early post-transplant period, and of these, 21/50 (42.0%) were diagnosed with acute GVHD. Dermatology was consulted for 29/50 (58.0%) patients with rash and a skin biopsy was perfomed on 16/29 (55%) patients seen by dermatology. Treatment plans were changed after dermatologic consultation in 15/29 (51.7%) patients.

Conclusion: Dermatologic consultation for the recognition and diagnosis of the early cutaneous complications of HSCT is a valuable resource that often leads to changes in patient management. Further studies are necessary to analyze whether patient outcomes are affected by dermatologic consultation.