HEMATOLOGY, TRANSFUSION AND CELL THERAPY

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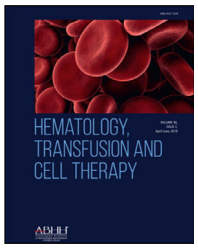

POSTER PRESENTATIONS

ADULT HEMATOLOGY ABSTRACT CATEGORIES

ACUTE LEUKEMIAS

PP 01

ASPARAGINASE INDUCED SINUS VEIN THROMBOSIS IN AN ADULT YOUNG ALL PATIENT

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Objective: Asparaginase has a very important role in ALL treatment among increasing of remission rate and duration. Multiple side effects prevent its regulatory use. Asparaginase reduce antithrombin 3, heparin cofactor II, protein C and plasminogen synthesis. By the way, P-selectin, PAI 1, tissue factor activity, and vWF antigen levels increase. Hypofibrinogenemia may be a marker of of hemostasis disturbances and decreased protein synthesis. **Case report:** A 25-year-old male patient with acute T-cell lymphoblastic leukemia diagnosis was initiated on induction chemotherapy according to augmented BFM protocol. After 4 weeks, remission was confirmed. During consolidation with the third dose of standard L-asparaginase of 10000 units, headache, nausea and vomiting started and confusion developed. Biochemical investigations, PT, aPTT were within normal limits. Fibrinogen was 92 mg/dL and D-dimer was high.Contrast-enhanced MRI showed a thrombus occluding. **Methodology:** the superior sagittal sinus. He was intubated and followed up in the intensive care unit due to a rapid decline in the Glasgow score and epileptic seizures. Correction of fibrinogen with cryoprecipitate anticoagulation treatment contributed to symptoms improvement. unfortunately, asparaginase was removed from the protocol. During maintenance therapy, he has had severe COVID-19 pneumonia and during this time he did not experience any thrombosis related complications. **Results:** Asparaginase therapy is associated with low antithrombin and fibrinogen levels and 7% of thrombosis rate. Previous studies showed that, in ALL patients, thrombosis occurred far more frequently during cycles that contained asparaginase than those that did not. **Conclusion:** Therefore, studies have investigated the role of fresh frozen plasma or cryoprecipitate supplementation to reduce the thrombohemorrhagic risk of therapy. Retrospective studies suggest antithrombin concentrates may have a beneficial effect on the outcomes of adults treated with asparaginase for ALL.

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PP 02

VENETOCLAX AZACITIDINE COMBINATION THERAPY IN FIRST-LINE TREATMENT OF ACUTE MYELOID LEUKEMIA PATIENTS: A SINGLE CENTER EXPERIENCE

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Objective: The response of elderly patients with acute myeloid leukemia (AML) to standard induction therapy is quite poor due to higher frequency of adverse genomic features, increased resistance to treatments, comorbidities and performance status. BCL-2 overexpression is implicated in survival of AML cells and treatment resistance. Preclinical data demonstrated the anti-leukemic effect of venetoclax, a selective BCL-2 overexpression is implicated in survival of AML cells and treatment resistance. **Methodology:** Venetoclax has received FDA approval for the treatment of AML patients >75 years of age and in combination with hypomethylating agents/low-dose cytarabine in patients not eligible for intensive therapy. Six newly diagnosed AML patients who were followed up in Gülhane Education and Training Hospital, Hematology clinic and treated with azacitidine+venetoclax were evaluated retrospectively. **Results:** F/M:1/5,the mean age was 77.3 (63-87).Two patients were secondary AML.All

patients had normal karyotype.Venetoclax+azacytidine treatment was started in all patients as first-line treatment after obtaining off-label consent.The average number of courses of venetoclax + azacitidine administered 3.5 (1-8).Patients received 200 mg/day venetoclax because of fluconazole usage concomittantly.One patient died with a FEN attack at the end of the second cycle, and 5 patients are still being followed up. **Conclusion:** Azacitidine or decitabine monotherapy yields low response rates (10%-50%, including hematologic improvement), require 3.5 to 4.3 months to achieve best response, and are not curative, with a median OS of less than 1 year.Targeted therapies capable of rapidly inducing a high rate of clinical response, with better tolerability and durable responses for elderly patients with AML. The novel combination of venetoclax with decitabine or azacitidine was effective and well tolerated in elderly patients.

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PP 03

A REGISTRY-BASED, OBSERVATIONAL SAFETY STUDY OF INOTUZUMAB OZOGAMICIN (INO) IN PATIENTS WITH B-CELL PRECURSOR ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) PROCEEDING TO HEMATOPOIETIC STEM CELL TRANSPLANT (HSCT)

David MARKS [1], Marcos DE LIMA [2], Partow KEBRIAEI [3], Francesco LANZA [4], Christina CHO [5], Sergio GIRALT [5], Gizelle POPRADI [6], Michael HEMMER [7], Xin ZHANG [8], Richa SHAH [8], Verna WELCH [8], Erik VANDENDRIES [8], Matthias STELLJES [9], Wael SABER [7]

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Objective: InO is a CD22-directed antibody-drug conjugate indicated for treatment of relapsed/refractory (R/R) ALL. InO has been associated with hepatotoxicity and hepatic veno-occlusive disease/sinusoidal obstruction syndrome (VOD/SOS), particularly post-HSCT. Registry data from the Center for International Blood and Marrow Transplant Research (CIBMTR) was analyzed to assess toxicity in patients (pts) with ALL who received InO prior to HSCT. **Methodology:** CIBMTR patient data are being collected from 2017-2022 after US approval of InO. Data accrued from 2017–2020 from 131 US adult pts (median age 40 y) treated with InO who proceeded to allogeneic HSCT were included. Using interim data at 3 y, we evaluated post-HSCT outcomes, including clinical status, overall survival (OS), non-relapse mortality (NRM), relapse, death after relapse, and investigator-defined adverse events, including hepatic VOD/SOS. All statistical analyses are descriptive. **Results:** Before HSCT, 36% of pts received 1 InO cycle, 46% had 2 cycles, 17% had ≥3 cycles. Median time from last InO dose to HSCT was 2.0 mos (range: 0.4–26.2). At data lock (Nov 2020, n=131), VOD/SOS incidence within 100 d post-HSCT was 13% (18% of R/R ALL pts, n=91). Post-HSCT 12 mo OS was 55%; post-HSCT 12 mo NRM was 21%; post-HSCT 12 mo relapse was 36%; non-HSCT-related 12 mo mortality was 25%. Most pts (89%) who underwent HSCT during complete remission (CR) experienced continued CR post-HSCT. **Conclusion:** Incidence of VOD/SOS after first HSCT in InO-treated pts with R/R ALL in this study was similar to the 18-19% reported in pooled analyses of 2 clinical trials among InO-treated pts with R/R ALL and in the INO-VATE study. The NRM at 1 y of 21% (23% R/R ALL) is lower than the NRM at 1 y of 38% reported in the pooled analyses of R/R ALL InO recipients.

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PP 04

ANTI-CD52 TREATMENT EXPERIENCE IN A T-CELL PROLYMPHOCYTIC LEUKEMIA PATIENT:CASE REPORT

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Objective: T-cell prolymphocytic leukemia (T-PLL) is a rare and highly aggressive T cell neoplasm with rapidly progressing clinical course. T-PLL accounts for 2% of mature lymphocytic leukemia in adults. Median overall survival with modern therapy is reported one to three years. Here we report a T-PLL patient with peritoneum involvement and progressive ascite despite anti-CD52 treatment. **Case report:** A 65-year-old man with diabetes mellitus was admitted to hospital due to fatigue for a few weeks. Laboratory workup revealed that white blood cell count $469 \times 103/\mu l$ (90% lymphocytes), haemoglobin of 11.4 g/dl, platelets of $104 \times 103/\mu l$. Medium sized atypical lymphoid cells with partial chromatin condensation and a visible nucleolus were observed on blood smear. **Methodology:** On physical examination, palpable inguinal lymph nodes, splenomegaly 3 cm below the rib margin and a palpable lesion on the helix of left ear were noticed. Punch biyopsy of skin lesion was reported as a mature and immature T cell infiltration which are CD3 and CD10 positive and Tdt, CD34, CD20, CD99 negative. Flow cytometric study of peripheral blood sample was revealed that T-Chronic Lymphocytic Leukemia (T-CLL). **Results:** FMC protocol (fludarabine, mitoxantrone, and cyclophosphamide) was initiated and followed by intravenous alemtuzumab at a dose of 3 mg on day 1, 10 mg on day 2 and 30 mg on day 3. However after two months of