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essential. In patients with intestinal symptoms after HCT, upper endoscopy with duodenal biopsy and sigmoidoscopy has an acceptable diagnostic yield for intestinal involvement.

**Clinical trial identification:** Prospective study

**Legal entity responsible for the study:** Local ethics committee

**Funding:** None

**Disclosure:** All authors have declared no conflicts of interest.

**1027P** Surveillance stool culture and its association with febrile neutropenia in patients with acute leukemia (AL) undergoing induction chemotherapy

N.T. Jadhav<sup>1</sup>, B. Dubashi<sup>2</sup>, J. Mandal<sup>3</sup>, S. Kayal<sup>1</sup>, J. Pattnaik<sup>1</sup>, P. Madasamy<sup>1</sup>, J. Singh<sup>1</sup>

<sup>1</sup>Medical Oncology, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India, <sup>2</sup>Medical Oncology, Regional Cancer Centre, JIPMER Jawaharlal Institute Postgraduate & Medical Research, Puducherry, India,

<sup>3</sup>Microbiology, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India

**Background:** Febrile neutropenia remains one of the major concerns of intensive chemotherapy and contributes significantly to morbidity, health care expenditure and mortality. Colonization of gut by MDR bacteria is regarded as a potential risk factor for subsequent infection with the same organism during febrile neutropenia. In this study, we aim to find the profile of surveillance stool culture and its association with febrile neutropenia in patients of acute leukemia undergoing induction chemotherapy.

**Methods:** Newly diagnosed patients of acute leukemia eligible for intensive chemotherapy were recruited for the study. Baseline stool microscopy and culture sensitivity was done to identify colonization with pathogenic bacteria. Blood and other samples were collected during febrile neutropenia. Association between surveillance stool culture and subsequent infections were studied.

**Results:** A total of 106 patients were recruited from November 2015 to March 2017. 59 patients were pediatric AL with median age of 10 years and 47 patients were adult AL with median age of 33 years. 68.86% of patients had gut colonization with bacteria of which 33.01% were MDR while 35.84% were non-MDR. Most common MDR bacteria colonizing gut were *E. Coli* (62.16%) and *Klebsiella Pneumonia* (21.82%). A total of 264 blood cultures were taken from 68 patients who developed 114 episodes PN during induction. Blood culture positivity rate was 17.80% with 68.08% of the isolates being MDR. Most common MDR isolates were *Klebsiella* (28.12%) and *Pseudomonas* (18.75%). 34.28% of patients colonized with MDR bacteria developed MDR sepsis during induction compared to 23.68% non MDR colonizers. Induction mortality was 20% in MDR colonizers compared to 10.52% in non-colonizers.

**Conclusions:** Our study suggests that a significant proportion of patients are colonized with MDR bacteria and there is a high prevalence of MDR sepsis during induction. MDR sepsis and induction mortality were higher in patients colonized with MDR bacteria compared to non MDR bacteria.

**Legal entity responsible for the study:** JIPMER

**Funding:** JIPMER

**Disclosure:** All authors have declared no conflicts of interest.

**1028P** L-arginine – targeted for the anthracycline cardiotoxicity prevention in patients with acute leukemia of high cardiological risk

T. Lymanets, I. Skrypnyk, G. Maslova

Ukrainian Medical Stomatological Academy, Poltava, Ukraine

**Background:** The risk of anthracycline cardiotoxicity (AC) significantly increases in patients with comorbid ischemic heart disease (IHD), which requires monitoring and prevention during chemotherapy (CT) of acute leukemia (AL). In this study we aim to evaluate the effectiveness of L-arginine in AC prevention in AL patients with comorbid IHD during induction CT.

**Methods:** A total 66 patients with newly diagnosed AL and comorbid IHD were included in the study, ECOG I-II. The cohort consisted of 34 (51.5%) males and 32 (48.5%) females, age 54-72 years. The IIHD duration was 3–15 years. CT included doxorubicin. We determined the level of troponin I, nitrite anions [NO<sub>2</sub>], performed daily ECG-monitoring: at baseline and in achieving a cumulative dose of anthracyclines (CDA) from 100 to 200 mg/m<sup>2</sup>. Depending on AC prevention patients were divided into two groups: I (n = 36) – AL patients treated with CT; II (n = 30) – AL patients treated with CT and L-arginine.

**Results:** Prior to CT, according to the daily ECG-monitoring in 47 (71.2%) patients' periods of tachycardia were diagnosed, with single supraventricular extrasystoles (SEs) and ventricular extrasystoles (VEs) – in 35 (53%) and 17 (25.7%) pts, respectively. The decreased concentration of [NO<sub>2</sub>] in blood serum in 1.5 times relative to normal values (p<0.05) was noticed. Troponin I in all patients of both groups was <0.5 ng/ml. Reaching low CDA in group I we recorded: periods of tachycardia in 36 (100%) pts, increasing number of single and paired SEs – in 24 (66.6%), VE episodes – in 19 (52%), clinically significant ST-segment depression – in 29 (80.5%) and interval QT prolongation – in 14 (38.8%) pts. Troponin I was >0.5 ng/ml in 7 (19.4%) pts. Simultaneously, deepening of endothelial dysfunction (ED) was noted: [NO<sub>2</sub>] was in

1.8 times lower vs norm. After 2 CT courses in 20 (66.6%) patients of group II on tachycardia background the single SEs were recorded and only in 1 (3.3%) patient troponin I level was >0.5 ng/ml. The ED leveled: [NO<sub>2</sub>] didn't significantly differ from the norm.

**Conclusions:** Thus, L-arginine in AL patients with comorbid IHD during induction CT leads to reducing the risk of necrotic injury of cardiomyocytes and improves endothelial function that prevents early AC.

**Legal entity responsible for the study:** Ukrainian Medical Stomatological Academy

**Funding:** None

**Disclosure:** All authors have declared no conflicts of interest.

**1029P** Multiple myeloma complicated by concomitant cardiac pathology

S. Semochkin, E. Yurova

Oncology, Hematology and Radiotherapy, Pirogov Russian National Research Medical University, Moscow, Russian Federation

**Background:** Patients with multiple myeloma (MM) often have cardiac comorbidities because of several factors, including the history of cardiac events, myeloma and treatment-related factors. Age is an important risk factor, given that the median age at the diagnosis of MM in Russia is 64 years. Additionally, the MM-related cardiac risk factors include underlying and undiagnosed cardiac amyloidosis, hyperviscosity, high-output failure, anemia and renal failure. Therefore, there are poorly understanding of real efficiency anti-myeloma treatment for this category of patients. In the presented work we have analyzed the efficiency of the most commonly used bortezomib-containing regimens in anti-myeloma treatment for patients with MM with concomitant cardiac diseases.

**Methods:** One hundred and forty-eight (males – 69, females – 79) patients were enrolled in this trial during March 2008 – May 2010. They divided on groups with (1) newly diagnosed and (2) relapsed and refractory MM. The median ages for patients of all groups was 64.7 years (ranges, 36.3 – 82.7). An obligatory condition was the presence in all patients of significant cardiac pathology. The bortezomib-containing regimens VCD (n = 95), VMP (n = 36) or VD (n = 15) were used as anti-myeloma treatment. IMWG (2006) criteria were used for anti-myeloma response assessment. Comparisons for categorical variables among different groups were made with chi-square test. Overall survival (OS) was measured from the date of treatment initiation until the date of death or the date of last follow up. For multivariate analysis, factors associated with time to event were introduced into a Cox proportional model.

**Results:** ECOG performance status of ≤ 2 have 81 (54.7%) patients. The verified diagnosis of ischemic heart disease was in 109 (73.6%) patients and symptoms of chronic heart failure was in 86 (58.1%) patients. The overall response rate (ORR) documented in 65.7% cases with newly diagnosed and 59.5% cases with relapsed and refractory MM including complete and strong complete remission (CR/sCR) in 22.9% and 20.3% cases respectively. With a median follow-up of 4.9 years for the comparison groups, the 5-year overall survival (OS) was 22.8 ± 5.3% and 17.3 ± 4.4% (p = 0.295). The median OS was 40.0 and 31.8 months respectively.

**Conclusions:** In multivariate analysis only ECOG scores ≥ 2 were demonstrated an independent negative prognostic value both for the event-free survival (Hazard ratio 1.69; p = 0.006) and OS (Hazard ratio 1.76; p = 0.003). Overall, the bortezomib-based treatment in myeloma patients with concomitant cardiac pathology accompanied by no significant increase in the incidence of cardiovascular adverse events.

**Legal entity responsible for the study:** Pirogov Russian National Research Medical University (RNRMU) Research Medical University (RNRMU)

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**1030P** Evaluation of dose intensification of cytarabine in postremission therapy in older AML patients within the prospective phase II AMLSG 06-04 study

L. Häcker<sup>1</sup>, M. Tassara<sup>2</sup>, P. Brossart<sup>3</sup>, G. Held<sup>4</sup>, H.A. Horst<sup>5</sup>, M. Ringhoffer<sup>6</sup>, C.-H. Köhne<sup>7</sup>, S. Kremers<sup>8</sup>, A. Raghavachar<sup>9</sup>, G. Wulf<sup>10</sup>, H. Kirchen<sup>11</sup>, D. Nachbauer<sup>12</sup>, M. Watted<sup>13</sup>, A. Benner<sup>14</sup>, D. Weber<sup>1</sup>, V.I. Gaidzik<sup>1</sup>, P. Paschka<sup>1</sup>, K. Döhner<sup>1</sup>, H. Döhner<sup>1</sup>, R. Schlenk<sup>15</sup>

<sup>1</sup>Internal Medicine, University Hospital Ulm, Ulm, Germany, <sup>2</sup>Medical Oncology, San Raffaele Hospital, Milan, Italy, <sup>3</sup>Medical Oncology, University Hospital Bonn, Bonn, Germany, <sup>4</sup>Medical Oncology, University Hospital Saarland, Homburg, Germany, <sup>5</sup>Medical Oncology, University Hospital Kiel, Kiel, Germany, <sup>6</sup>Medical Oncology, Klinikum Karlsruhe, Karlsruhe, Germany, <sup>7</sup>Medical Oncology, Klinikum Oldenburg, Oldenburg, Germany, <sup>8</sup>Medical Oncology, Krankenhaus Lebach, Lebach, Germany, <sup>9</sup>Medical Oncology, Klinikum Wuppertal, Wuppertal, Germany, <sup>10</sup>Medical Oncology, Universitätsmedizin Göttingen, Göttingen, Germany, <sup>11</sup>Medical Oncology, Krankenhaus der Barmherzigen Brüder, Trier, Germany, <sup>12</sup>Medical Oncology, University Hospital Innsbruck, Innsbruck, Austria, <sup>13</sup>Medical Oncology, Klinikum Essen, Essen, Germany, <sup>14</sup>Division of Biostatistics, German Cancer Research Center, Heidelberg, Germany, <sup>15</sup>NCT Trial Center, German Cancer Research Center, Heidelberg, Germany

**Background:** Progress in the treatment of acute myeloid leukemia (AML) in older patients (pts) is still limited. In the randomized part of the AMLSG 06-04 trial, valproic acid (VPA) was evaluated in combination with intensive therapy plus all-trans retinoic