

ABSTRACTS COLLECTION



The 48th Annual Meeting of the European Society for Blood and Marrow Transplantation: Psychiatry and Psychology Group – Poster Session (P579-P589)

Bone Marrow Transplantation (2022) 57:443–448; <https://doi.org/10.1038/s41409-022-01801-8>

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19–23 March, 2022 ● Virtual Meeting

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Sponsorship Statement: Publication of this supplement is sponsored by the European Society for Blood and Marrow Transplantation. All content was reviewed and approved by the EBMT Committee, which held full responsibility for the abstract selections.

35—Psychological Issues

P579

Psychological need in the haematopoietic stem cell transplant pathway—what do our patients think? Outcomes of a patient listening event

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Background: It is well recognised that undergoing a stem cell transplant is psychologically challenging, and can have a significant long-lasting impact on an individual's psychological functioning. At St George's University Hospitals NHS Foundation Trust a new integrated psychology post was developed in the HSCT team, with the support of Anthony Nolan, in recognition of the importance of psychological care. In developing this service, we wanted to place the patient's voice and co-production at the heart of our work, to ensure our focus remained on their wants and needs. To initiate this, a listening event was held for post-transplant patients to ascertain their views on their psychological care during their HSCT. At the time of their transplants, there was no dedicated clinical psychologist in the HSCT team, although psychological support could be accessed through the Cancer Psychological Support (CaPS) team.

Methods: All patients who had completed a HSCT between 6 months and 5 years previously were screened (excluding only those seriously unwell or deceased) and invited by letter. The event was also advertised in clinic and on social media. An interview schedule was developed based on areas that held most importance for service development; we sought patient's opinions on the psychological challenges of the HSCT process at the time of admission and subsequently, whether they felt their psychological needs had been considered by the team, and what, if any, psychological support they had received. We also asked about their views on the developing psychology service and what they

would have found helpful based on their experiences. The event was run remotely and discussions were facilitated by experienced clinical psychologists.

Results: 11 patients attended the event. Although there was understandably variation in their experiences, there was an overwhelming narrative of psychological challenges during the process including uncertainty and fear, the difficulty of isolation (especially during the COVID-19 pandemic), and the longer-term impact of the experience emotionally. Although a few attendees had accessed psychological support through the CaPS team, the majority hadn't been aware of it, and many felt their psychological needs had not been adequately recognised or addressed. In terms of desired psychological support, participants said they would have found it helpful to meet a psychologist early on, before transplant, and to have known what support was available. Many also spoke of the potential and received value of peer support—those who had accessed this found this very helpful and thought it should be more widely available.

Conclusions: Our patients described significant psychological challenges inherent in the transplant process, consistent with the literature, which were not always recognised or treated. This patient-led data will be used to guide our strategy for developing the service, with a multi-level approach to ensure all team members feel confident in assessing psychological need, as well as the dedicated psychologist providing greater visibility and access to patients coming for HSCT. This event has also evidenced the interest of the patient group and initiated an on-going co-production relationship, using patient voices on an ongoing basis.

Disclosure: Dr Jenna Love's clinical post is funded by Anthony Nolan.

P580

Physical, psycho-social, and learning functioning after hematopoietic stem cell transplantation in children

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Background: Hematopoietic stem cell transplantation (HSCT) is a curative treatment for children with severe hematological disorders, but at the same time increases the risk of treatment-related morbidity with problems that can affect the child's daily functioning. This study aimed to assess the physical, psycho-social, and learning functioning of Tunisian children who have had HSCT and to analyze the factors influencing the quality of life in these children.

Methods: This was a cross-sectional study, enrolling 30 patients followed in the pediatric department after HSCT. The quality of life of the patients was assessed using two assisted questionnaires for parents and children/adolescents: generic Pediatric Quality of Life (PedsQL 4.0) and the additional PedsQL "stem cell transplant" (SCT) module.

Results: Patients were divided into 15 boys and 15 girls with an average age of 79.73 months \pm 60.15 months (10 months–213 months). The main indications for HSCT were primary immune deficiency (PID) (31%), Fanconi disease (24%), and acute leukemia (13%). The overall score for the quality of life of transplanted patients reported by parents was well correlated with children's responses. The overall quality of life after HSCT of our patients was lower than the standards defined for healthy subjects. The area most affected after transplant was the academic function having the lowest score. The physical capacity of the patients was lower than that of the healthy subjects. The post-transplant emotional state and social relations were not altered in our patients with a score that is not different from the norms of healthy subjects. The quality of life assessed by the specific SCT module was also generally satisfactory with an overall parent score of 85.72 well correlated with the patient score of 85.96. Worry problems were reported the most by parents and especially those of children under 4 years old. Communication problems were the most reported problems in older children and adolescents and had the lowest score in this age group. Pain, nausea, fatigue, sleep, and eating problems had more satisfactory mean scores between 85 and 94.

The comparison by the Anova test of the different groups of pathologies revealed a significant difference in quality-of-life scores for both PedsQL ($p = 0.043$) and the PedsQL SCT module ($p = 0.042$). The best score was noted in hemoglobinopathies with 96.4 ± 4.1 . The PedsQL SCT module quality of life score in patients who received a non-myeloablative conditioning regimen was significantly greater than that in patients who had myeloablative treatment ($p = 0.008$). Life quality was better away from HSCT ($r = 0.8$; $p = 0.012$).

Conclusions: After HSCT, patients generally do not achieve an especially physical quality of life identical to healthy subjects. However, HSCT recipients maintain normal emotional and social functioning. In addition to monitoring physical function and HSCT-related symptoms, monitoring should also consider overall psychosocial functioning. Knowing the factors influencing the quality of life of children receiving HSCT is essential to improve long-term outcomes.

Disclosure: Nothing to declare

P581

Neuropsychological targets in the early stages of rehabilitation of patients with HSCT

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Background: Hemopoietic stem cell transplantation (HSCT) is a unique and intense treatment experience often associated with distress requiring neuropsychological rehabilitation. Correct target values evaluation allows effective intervention. In this study we evaluated anxiety and depression level, compliance and cognitive function parameters as potential target values.

Methods: A total of 100 pre-transplant patients with leukemia (49 male and 51 female) with a median age of 33 (18–62) years were included into this prospective study conducted in HSCT department for adults of RM Gorbacheva Research Institute, Pavlov University. All of them underwent assessment for anxiety and depression by Hospital Anxiety and Depression Scale (HADS). The treatment compliance was evaluated using 8-item Morisky Medication Adherence Scale (MMAS) and cognitive functions via Montreal Cognitive Assessment (MoCA) scale. The data obtained was processed using standard statistical methods.

Results: The median anxiety and depression values were relatively normal. In 6 (11.8%) female and 2 (4%) male patients subclinical anxiety was detected. In 4 (7.8%) female and 3 (6.1%) male patients there were signs of clinically apparent depression. The anxiety symptoms grade was more severe in female compared to male patients (-2.016 by Mann–Whitney U test; $p = 0.04$), this was less evident for depression severity (-1.93 by Mann–Whitney U test; $p = 0.053$). The medication adherence was medium (6.37 points, $\sigma = 1.548$) in 16 (31.37%) female and low in 11 (22.45%) male patients indicating low treatment compliance.

The median MoCA value was lower (25.32 points, $\sigma = 2.601$). This was slightly more often observed in male ($n = 22$; 44.89%) than female ($n = 19$; 37.25%) patients. There was a tendency to higher cognitive functions values in female compared to male patients (-1.718 by Mann–Whitney U test; $p = 0.086$). The cognitive function has also shown a statistically significant correlation with education level (9.488 in Kruskal–Wallis test; $p = 0.023$).

The correlation analysis have shown a negative correlation between anxiety ($p = 0.031$) or depression ($p = 0.03$) symptoms and treatment compliance. The older the patient the lower his compliance is ($p = 0.05$). There was a statistical tendency to negative impact of depression symptoms on cognitive functions ($p = 0.069$). Higher education level was associated with better MoCA score ($p = 0.018$).

Conclusions: Patients are generally emotionally stable at admission to HSCT department, but emotional status often deteriorates, requiring therefore a psychological monitoring. The treatment compliance depends on patient's age and emotional state, so monitoring in older patients should be more intensive. The same measures should be applied if anxiety and depression symptoms intensity increase. Severe depression symptoms have negative impact on cognitive functions so these symptoms have to be dealt with for cognitive rehabilitation to be effective. Also, in patients with lower MoCA score values important messages should also be provided in written form.

As a whole, methods used allowed development of an effective complex rehabilitation program for inpatients on early treatment stages.

Disclosure: Nothing to declare

P582

Expectations of the medical staff regarding cooperation with clinical psychologists at the bone marrow transplant clinic

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Background: The multidisciplinary principle of patient management is a fairly new phenomenon, as is the participation of such non-traditional members of the medical community as psychologists. The interaction between psychologists and medical staff, based on the complementarity of competencies, differs from communication between other, more traditional participants in the processes in medical institutions.

We conducted an anonymous survey of the clinic's medical staff aimed at clarifying the expectations from the work of psychologists with doctors and nurses.

The purpose of our study was Identification of expectations priorities of the psychological service team, as well as assessment of compliance of the expectations with the real competencies of medical psychologists.

Methods: In a prospective single-center study in 2021, on the base of the Department of Rehabilitation Medicine RM Gorbacheva Research Institute of Pediatric Oncology, Hematology and Transplantation 63 staff members participated in the interview.

Among them: 60%—nurses, 36.5%—physicians, 3.5%—other specialists; 38%—Bachelor's Degree, 38%—Master's Degree, 14%—PhD. Respondents had different work experience: under 3 years—44%, 3–5 years—5%, 5–10 years—22%, over 10 years—27%.

To assess expectations, we developed a special questionnaire, which was offered to be filled out in an online format.

Results: Among the study participants, 86% were interested in the topic of stress in the workplace, occupational deformity and burnout syndrome. A third asked for help in their personal and family life. Half of the team expected psychologists to arrange activities such as trips or workshops. Complete confidentiality during psychological counseling was preferred by 75% of the participants. Medical personnel believe that psychologists can help with conflict resolution (81%), in working with emotions (81%), in solving communication problems (76%), in a better understanding of patients (83%).

About 70% of the medical staff expected psychologists to be involved in research work.

Conclusions: The research has shown that in most cases appeals to the psychological service are adequate to our capabilities. These requests are professional and constructive. Collaboration between psychologists and physicians appears to be beneficial in improving clinical outcomes and internal team communication, and in reducing conflicts between patients' family members and medical staff. The survey confirmed the need for psychological support of staff to relieve stress and prevent burnout.

Disclosure: Nothing to declare

P583

Sociodemographic and psychological factors associated with psychiatric diagnosis before and during hospitalization for HSCT

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Background: Hematopoietic stem cell transplantation (HSCT) is related with the development of psychological symptomatology before, during and after the process and has a negative impact on patients' quality of life.

Objective: We had two aims: (1) to identify the prevalence of psychiatric disorder before and during the HSCT, and (2) to

identify the association among sociodemographic and psychological variables with psychiatric diagnosis before the HSCT.

Methods: The medical records of hematologic patients treated with HSCT were revised for a retrospective cross-sectional study. Data about psychiatric diagnosis preHSCT and psychiatric visits during HSCT hospitalization were recovered; additionally we recollected information like gender, marital status, education level, employment, oncology diagnosis, HSCT type, psychological family history, psychological personal history, drugs use, and role function.

Results: We enrolled 92 patients, 60.9% were male, 51.1% had basic education, 58.7% mentioned being married, and 40.2% were unemployed. 31.5% of patients had a psychiatric diagnosis pre-HSCT and 17.4% of patients required a psychiatric diagnosis during hospital HSCT; the most common diagnosis were depression 17.4% and anxiety 9.9%. A positive, weak, and statistically significant correlation was found between psychiatric diagnosis pre-HSCT and during HSCT ($r = 0.306$; $p < 0.003$). On the other hand, considering the psychiatric diagnosis preHSCT we identify differences between patients with and without psychiatric diagnosis before the HSCT by gender ($p \leq 0.002$) with higher prevalence in women, psychiatric family history ($p = 0.016$), and personal history pre-HSCT ($p \leq 0.001$). Other variables did not show differences between groups. There are not differences between groups during hospitalization for HSCT.

Conclusions: Psychiatric symptomatology is a frequent comorbidity in HSCT patients before and during the process; result suggest specific sociodemographic variables that could help to identify patients with higher risk to present psychiatric symptomatology. Lower prevalence of psychiatric diagnosis during hospitalization and not differences during hospitalization could suggest the mental health attention before the process is effective to prevent psychological affectionation during this phase.

Keywords: hematopoietic stem cell transplantation, psychiatric diagnosis, psychological symptomatology, sociodemographic factors.

Disclosure: Nothing to declare

P584

Quality of life and subjective well-being in pediatric patients at various stages of allogeneic HSCT: first results of Russian prospective study

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Background: The health related patient's quality of life as an important indicator for assessing the long-term consequences of the disease, the success of treatment and rehabilitation. Growth attention to issues related to interrelations of the patients' illness and treatment issues with subjective physical and psychosocial function, cognitive and affective parts of well-being, their individual and family predispositions are needed. The presented results are part of the larger prospective study of the quality of life and subjective well-being of children undergoing HSCT and their parents at various stages of HSCT. The aim of this part of study was to examine: parameters of distress, quality of life and subjective well-being and its interrelations with personal factors (coping, hardiness) prior to HSCT.

Methods: Measures of quality of life (PedsQL), subjective well-being (SHS, S. Lyubomirsky; SLS; SPANE, E. Diener), distress (DRS), coping behavior (ACS) and hardiness (PVSurvey III-R, Maddi) were

obtained from 42 children (8–18 years) with leukemia, primary immunodeficiency and aplastic anemia prior to HSCT (–1 week).

Results: While preparing to HSCT (–1 week) children have no distress or have moderate level of distress in about the same percentage of cases (40% and 45% respectively). The level of subjective well-being does not differ significantly from the normative group (SLS $M = 20.17$ $SD = 7.34$; SHS $M = 17.6$ $SD = 5.75$; SPANE Positive $M = 20.3$ $SD = 4.93$). Indicators of health-related quality of life are lower than population norms (Physical health $M = 69.02$, $SD = 18.41$; Psychosocial Health $M = 64.82$, $SD = 28.98$).

When comparing the level of quality of life between patients with different diseases, it was found that children with hematological malignancies have significantly lower results in terms of physical functioning ($U = 0.16$ $p < 0.05$).

Patients with a high level of distress (15% of the sample) have statistically significant difference in the level of negative affect ($U = 0.44$ $p < 0.05$) and imbalance ($U = 0.17$ $p < 0.05$) according to SPANE results. Also, the higher distress is strongly associated with lower quality of life in physical ($r = -0.415$ $p < 0.05$), emotional ($r = -0.678$ $p < 0.01$) and psychosocial functioning ($r = -0.491$ $p < 0.01$). More over these QL parameters significantly distinguish the group of children with a high level of distress from the rest ($U = 0.16$ $p < 0.05$, $U = 0.38$ $p < 0.05$, $U = 0.010$ $p < 0.05$ respectively). The use of unproductive coping strategies insignificantly associated with the lower quality of life, predominance of negative emotional experiences over positive, lower hardiness and higher distress.

Conclusions: The reduced level of quality of life of patients before transplantation is important to take into account in further research at various stages of HSCT. The results of the study confirm the importance of continuing to explore the contribution of personality factors to the patients' health-related quality of life. The level of distress prior to HSCT corresponds to the previously obtained data and according to the recommendations of the NSSN and IPOS indicates the need for additional attention of psychosocial services when preparing patients to transplantation. Diagnostics of the distress level confirmed its importance and convenience in identifying various problems, including those related to the patient's quality of life and subjective well-being.

Disclosure: Nothing to declare

P585

Psychological need in the haematopoietic stem cell transplant pathway—view of the clinical team

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Background: The psychological challenges of undergoing a stem cell transplant are well documented, and therefore it is an essential role of the HSCT team to ensure that an individual's psychological functioning is considered throughout the process and access to appropriate psychological support provided. The HSCT team at St George's University Hospitals NHS Foundation Trust performs both allogeneic and autologous transplants for malignant and non-malignant conditions. Recognising the importance of psychological factors, and with the support of Anthony Nolan, a new integrated psychology post was developed. This provided opportunity at the outset to explore the teams' understanding of the role of psychology and current psychological provision, as part of stakeholder engagement, and to ensure that the service subsequently designed would be driven by local needs. As part of this needs assessment, a survey was developed

to ascertain the views of health care professionals (HCPs) working in and with the HSCT service.

Methods: A bespoke survey was developed to capture HCPs view of the psychological needs of patients, how well these were currently being met both by the HSCT team and the existing cancer psychological support (CaPS) team, and priorities for the dedicated clinical psychology role. All relevant HCPs working directly in the stem cell team or with HSCT patients prior to/after their transplant were invited to participate by e-mail. The survey was completed electronically and anonymously.

Results: The survey was completed by nine staff of varying professions (medical consultants, nursing, physiotherapy). The results showed that the majority of respondents (7/9) felt they regularly assessed psychological coping, but felt they had not been offered training in this area, representing an area of need. Only a third of respondents felt that the psychological needs of patients were adequately considered during their HSCT treatment, and almost all (8/9) believed that patient's unmet psychological needs were having a detrimental impact on coping with the transplant process/post transplant functioning. The team valued the input provided by the existing CaPS service, yet unsurprisingly there were areas of outstanding need, including patients with non-malignant conditions who could not access psychology. Views on priorities for the dedicated psychologist were also explored, with high priority identified for pre-transplant psychological assessment, psychologically based support groups, research and prehabilitation.

Conclusions: Staff working in and with the stem cell transplant team felt that psychological need was not always adequately addressed, and was at times having a detrimental impact on coping both during and after the transplant. Although this is only a small sample size, when taken together with patient experience data from the service, there is a clear need for improved awareness of psychological care in all aspects of the HSCT pathway, and improving access to specialist psychological support, which supports the role of a dedicated clinical psychologist working in the team. The implementation plan for the embedded psychology post within the HSCT pathway has been built around these service-level priorities, enabling the psychology input to remain needs-led from the outset.

Disclosure: Dr Jenna Love's clinical post is funded by Anthony Nolan.

P586

Evaluation of anxiety and burnout of nurses working at adult bone marrow transplantation unit

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Background: Anxiety is defined as a psychological reaction to intense stress. Different education levels, working shifts, long working hours, low economic income, and high numbers of patients are the reasons that increase nurses' anxiety. Burnout is defined as emotional exhaustion as a result of overwork, depersonalization, and inadequacy towards patients, and a sense of failure that primarily affects people working with people. Uncertainty of work nature and fatal diseases appear as specific factors that increase burnout of BMT nurses. Also; it has been stated that forty percent of nurses who worked at the hospital have burnout and willing to quit their profession after one year. Therefore; this study it is aimed to examine anxiety and burnout among BMT nurses and determine solution recommendations according to the findings.

Methods: The study was conducted through multi-centered Hematology Services and BMT units. 68 BMT nurses participated from six different hospitals located in Istanbul. Participants filled out a socio-demographic form, Beck Anxiety Scale, and Maslach Burnout Inventory. Collected data were analyzed by IBM SPSS 25 program. Mann–Whitney *U* test and Kruskal–Wallis analyses were used. A significant statistical value is considered $p < 0.05$.

Results: It was determined that %88.2 of the nurses were female, %77.9 of them aged between 18 and 28, %67.6 of them were married, %72.1 of them were graduated from university and choose their job willingly, %51.5 of them were having an economic problem. The results revealed that there is a relation with bone marrow transplantation unit nurses' anxiety in the areas of their gender and duration of problems. Female nurses' anxiety levels were found to be mild and moderate while male nurses' anxiety levels were found to be moderate and severe. It was determined that %43 of the nurses have moderate anxiety if their duration of the problem is longer than 1 year. The burnout levels of nurses who have been working for more than 8 years and eager to continue their profession were low, and the burnout levels of nurses who have had problems for more than 1 year are determined to be high. Examined sub-dimensions of burnout showed that; nurses who are 40 years and older, who have been working for more than 8 years, and eager to continue their profession until retirement have the lowest level in both emotional exhaustion and depersonalization. However; the emotional exhaustion and depersonalization of nurses who do not have a hobby, who have been working 4 to 7 years, and who tend to quit their profession immediately were found to be at the highest level. Findings showed that; as the rate of anxiety among nurses increased, their emotional exhaustion rates also increased.

Conclusions: A significant relationship is found between nurses' anxiety with gender and the duration of problems that they had. Related to our findings and literature review; it is very important to organize psychoeducation seminars with nurses, and also it is required to identify methods of coping with stress which give the ability to manage nurses' anxiety.

Disclosure: Nothing to declare

P587

Heterogeneous psychological aspects of patients undergoing allogeneic hematopoietic stem cell transplantation: a single-center experience

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Background: Allogeneic hematopoietic stem cell transplant (HSCT), indicated for many hematological diseases, induces one of the most long-term physical and psychological sequels. Each patient (pt) has a unique story and is defined as the "one who suffers" and report a high prevalence of psychological distress, which can impact negatively recovery, functions and health outcomes.

Methods: The objective of the study is to provide an overview of the physical, emotional, psychological and social dimensions of the patients (pts) undergoing allogeneic HSCT, suffering from psychopathological symptoms due to the stress of the disease and the danger of both the disease and allogeneic HSCT. A 14-questions questionnaire was used to assess the psychological state including, depression, anxiety, post-traumatic stress disorder, cognitive impairment, social relations, resulting from HSCT. The patients were screened before allogeneic HSCT, then followed-up at least once weekly until discharge from the bone marrow transplant unit.

Results: From June 2020 to December 2021, 27 pts cooperatively responded to the psychological questionnaire before and after the transplant. There were 16 women and 11 men. Median age was 44,5 years old (20–67). Before allogeneic HSCT, the pts gave the following results respectively for common items: Ten pts showed a state of shock following the announcement of the diagnosis, a slow blurred thinking, an incomprehension of the situation, sleeping difficulties, changes in eating behavior, some annoying physical symptoms such a tremors, tight throat and heartbeat. Six pts expressed a loss of interests in activities accompanying emotional anesthesia. Eleven pts Showed distance from people with irritability and tantrums. All of the pts had a preference to know everything related to the disease, treatment and monitoring in addition to a psychological follow-up. Concerning the questions asked after day 0 of allogeneic HSCT and during hospitalization in the acute phase, we obtained the following results: six pts had extreme anxiety about the expected results in addition to sleeping difficulties. Seven pts suffered from change in eating behavior, a fear of not resuming a normal rhythm of life and a low self-esteem with underestimation, and fourteen pts talked about their need of psychological support and had a future plans, which was a good sign away from depression.

Conclusions: Psychological aspects of transplantation show the specific questions and problems of each stage of the patient's journey from the moment the decision to transplant is taken until after the transplant. Psychological support must be involved in the treatment of pts, before, during and after allogeneic HSCT. Each stage of the treatment has its difficulties and may have a different psychological impact.

Disclosure: Nothing to declare

P588

How modern psychoanalysis could support modern medicine —communication, translation and searching for a meaning

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Background: Modern medicine achieves unforeseen successes in continuing life, supporting health conditions thought helpless and investigating human body. Every part of it could be transparent and seen, changed, repaired. Strangely, the more developed technologies are, the more achievements we have, the more unhappy patients appeared to be, concerning the quality of their emotional relationship with their doctors. What lies beneath the bigger range of opportunities that still stays in the shadow? Answer: the human personality.

Methods: Clinical case reports.

Results: Investigating these questions through psychoanalytical ideas brings light to the question of the quality of suffering and importance of doctor-patient relationship.

Conclusions: Trying to put the relationship doctor-patient in the middle of our interest and discuss the depth if the mutual relativity, gives wider understanding to everyday medical situation.

Clinical Trial Registry: No

Disclosure: Nothing to declare

P589

Neurocognitive function after allogeneic hematopoietic stem cell transplantation for sickle cell disease and transfusion dependent thalassemia

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Background: Sickle cell disease (SCD) is associated with progressive neurocognitive impairment due disease associated micro- and macrovascular damage, while in transfusion dependent Thalassemia (TDT) chronic anemia impairs physiological development and function. Allogeneic hematopoietic stem cell transplantation (alloHSCT), currently the only curative treatment option, is also associated with neurocognitive impairment mainly due to toxicity of the conditioning regimen and immunosuppression. Therefore, we analyzed the neurocognitive function in patients with SCD and TDT before and after alloHSCT to characterize the neurocognitive outcome in this vulnerable patient population.

Methods: Patients with SCD ($n = 5$) and TDT ($n = 3$) at a median age of 11.2 years (range: 4.9 to 21.4 years), who underwent alloHSCT from an HLA-identical ($n = 4$), haplo-identical ($n = 3$), or unrelated donor ($n = 1$) were evaluated. A myeloablative conditioning consisting of Thiotepa, Treosulfan, Fludarabin (FTT) and ATG-Grafalon was used unanimously, and post-transplant immunosuppression consisted of tacrolimus and MMF (plus in vitro T cell depletion in haplo-HSCT). Neurocognitive assessment was performed before and at a minimum of one year after alloHSCT. To this end, six tests covering the domains: *common intelligence* (culture-fair test RAVEN Standard Progressive Matrices (SPM)), *eye-hand coordination* (Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI)), *auditory short-term memory* (K-ABC repeat numbers), *fine-motor skills* (Purdue® pegboard Test),

cognitive processing speed and concentration (HAWIK-IV numbers symbol test, HAWIK-IV symbol search) were applied. The HAWIK vocabulary test for common intelligence was excluded from evaluation due to varying languages of the evaluated patients.

Results: Over a period of at least 360 days between pre (t1) and post alloHSCT treatment examination (t2) the median of the percentile ranks differences in the domain of common intelligence were almost stable (median -5.5 percentile ranks, range: -39 to 13). However, the eye-hand coordination worsened (median of -25 , range: -52 to -5), also cognitive processing speed and concentration decreased (median -9 , range: -15 to 7 and -13 , range: -34 to 20 , respectively). In contrast, the domain covering auditory short-term memory demonstrated an improvement (median 7 , range: -26 to 13). The same tendency applied to fine-motor skills, which improved (medians for dominant hand 20 , range: 0 to 70 ; not dominant hand 60 , range: 10 to 70 ; both hands 5 , range: -40 to 50).

Conclusions: Within this pilot cohort of SCD and TDT patients, alloHSCT resulted in a stable common intelligence, while auditory short-term memory as well as fine motor skills improved. In contrast, cognitive processing speed and concentration worsened, which is in line with another publication from Scherwath et al. (*Psychooncology*, 2013) reporting concentration issues after alloHSCT for hematologic malignancies, probably due to the toxicity of the transplant procedure independent of the underlying disease.

Disclosure: nothing to declare