



The 65th ASH Annual Meeting Abstracts

POSTER ABSTRACTS

903.HEALTH SERVICES AND QUALITY IMPROVEMENT -MYELOID MALIGNANCIES

Effect of Pre-Transplantation Nutritional Status on the Early Related Complications of Allogeneic Hematopoietic Stem Cell Transplantation:a Cohort StudyFangfang Wu¹, Shanshan Du¹, Xin Du¹, Rufu Xu¹, Aihua Sun¹, Peiyan Kong², Lei Gao², Xi Zhang, PhD²¹Medical Center of Hematology, Xinqiao Hospital, Medical University, Chongqing, China²Army medical University affiliated Xinqiao Hospital, Chongqing, China

Background Allogeneic hematopoietic stem cell transplantation is an effective method for the treatment of hematologic malignancies. Malnutrition is a common complication and has a negative impact on poor prognosis. It has been proved that blood biochemical indexes such as muscle mass ratio albumin etc. can reflect earlier the nutritional status of patients, but the influence of muscle mass pre-transplantation on the early transplantation related complications remains unclear. **Objective** To investigate the effect of pre-transplantation skeletal muscle mass (SMM) on the early outcome of allogeneic hematopoietic stem cell transplantation, and to provide clinical evidence for nutritional intervention and prognosis improvement. **Method** A cohort study was conducted in 77 patients with leukemia who received allogeneic hematopoietic stem cell transplantation in the Hematology Medical Center of Chongqing Xinqiao Hospital from January to October 2022 were selected. The skeletal muscle quality was evaluated by bioelectrical impedance method. According to the skeletal muscle mass, the patients were divided into normal skeletal muscle mass group(36) and low skeletal muscle mass group(41). The baseline data of the patients were collected, including personal information and clinical data. SPSS23.0 software was used to compare the differences in oral mucositis, digestive tract symptoms, infection and hematopoietic reconstitution time between the two groups. **Result** Before transplantation, the SMM of patients was poor, which was not up to the normal value in 53.25%.The incidence of oral mucositis in normal SMM group was 41.67%, significantly lower than that in low SMM group 92.68% ($\chi^2=23.255$, $P<0.001$).The severity of oral mucositis was significantly different ($Z=6.461$, $P<0.001$) between the normal SMM group and the low SMM group. The incidence of hypoalbuminemia in normal SMM group was 16.67%, significantly lower than that in low SMM group 46.34% ($\chi^2=7.699$, $P<0.001$).The incidence of overt gastrointestinal bleeding and infection in normal SMM group were significantly lower than those in low SMM group ($\chi^2=4.208$, $P=0.040$; $\chi^2=4.727$, $P=0.030$). the neutrophils and platelets grafting time in the normal SMM group was significantly shorter than that in the low SMM group ($Z=2.943$, $P=0.003$; $Z=2.756$, $P=0.006$). There was no significant difference in the incidence of diarrhea, nausea and vomiting, stomachache/ abdominal pain between the two groups. **Conclusion** The incidence of low skeletal muscle mass is high in patients before transplantation, and low skeletal muscle mass is associated with the onset of oral mucositis, the severity of oral mucositis, hypoalbuminemia,gastrointestinal bleeding ,infectionand the delay of neutrophil and platelet implantation time in patients at the early stage of transplantation. Patients should actively improve skeletal muscle mass before transplantation to improve the early outcome of transplantation.

Disclosures No relevant conflicts of interest to declare.<https://doi.org/10.1182/blood-2023-188646>