



The 65th ASH Annual Meeting Abstracts

POSTER ABSTRACTS

721.ALLOGENEIC TRANSPLANTATION: CONDITIONING REGIMENS, ENGRAFTMENT AND ACUTE TOXICITIES

Granulocyte Colony-Stimulating Factor and Decitabine-Containing Conditioning Improves Survival in Myelodysplastic Syndrome Patients with Iron Overload Undergoing Allogeneic Hematopoietic Stem Cell Transplantation

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Background: Iron overload is considered as an unfavorable prognosis in myelodysplastic syndrome (MDS) even in those undergoing allogeneic hematopoietic stem cell transplantation (allo-HSCT). Although iron chelation therapy has improved the prognosis of these patients to some extent, the effect has not yet been satisfactory. This study aimed to investigate whether granulocyte colony-stimulating factor and decitabine (G-DAC)-containing conditioning improve the prognosis of iron-overloaded MDS patients undergoing allo-HSCT.

Study Design: One hundred and ninety-seven patients were enrolled in this retrospective study. Based on the level of serum ferritin (SF) and conditioning regimen, all patients enrolled were divided into 4 groups: SF1000μg/L with G-DAC conditioning (cohort 1), SF1000μg/L with non-G-DAC conditioning (cohort 2), SF ≥ 1000μg/L with G-DAC conditioning (cohort 3) and SF ≥ 1000μg/L with non-G-DAC conditioning (cohort 4). The clinical features and prognosis between cohorts were analyzed.

Results: The 2-year overall survival (OS) was 77.0%, 72.1%, 73.8% and 38.7% ($P = 0.001$), and disease-free survival (DFS) was 75.7%, 62.8%, 71.7% and 35.5% ($P = 0.001$), and the cumulative incidence of non-relapse mortality (NRM) was 17.3%, 25.0%, 15.2% and 53.1% ($P = 0.001$), and the incidence of relapse was 8%, 13.6%, 13.1% and 12.5% ($P = 0.592$), respectively, in the four groups. To be specific, cohort4 had worse OS and DFS and higher NRM than the other three groups (all $P < 0.05$). Multivariate analysis revealed that SF ≥ 1000μg/L was a risk factor for OS, DFS and NRM ($P = 0.022$, $P = 0.025$, $P = 0.036$), while G-DAC-containing conditioning was a protective factor ($P = 0.009$, $P = 0.003$, $P = 0.004$). Intriguingly, when cohort 1 to cohort4 were included in the multivariate analysis, only cohort4 was a risk factor for OS, DFS and NRM (all $P < 0.05$), but cohort3, namely iron-overloaded patients who received G-DAC-containing conditioning had no difference in prognosis compared with patients with SF1000μg/L.

Conclusions: The poor prognosis of patients with iron overload could be overcome by G-DAC-containing conditioning partly.

Disclosures No relevant conflicts of interest to declare.

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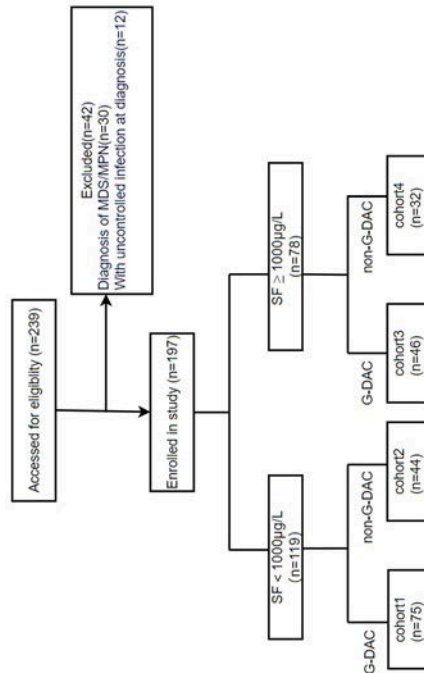


Fig.1 Flow diagram

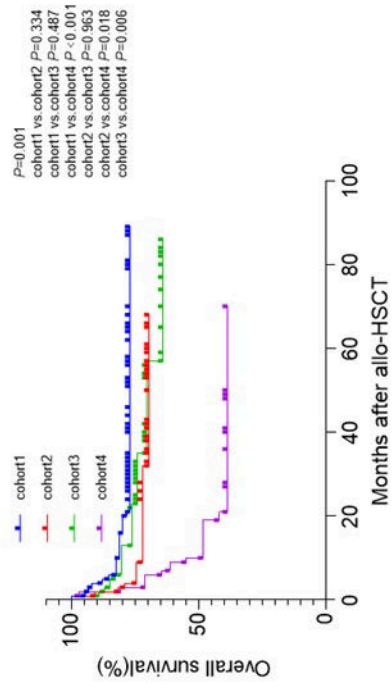


Fig.2 Overall survival

Figure 1