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PB2027 EFFICACY OF THERAPY IN PATIENTS WITH NEWLY DIAGNOSED MYELODYSPLASTIC SYNDROME WITH UNFAVORABLE IMMUNOPHENOTYPIC AND CYTOGENETIC PROGNOSIS.

Topic: 10. Myelodysplastic syndromes - Clinical

Hanna Trubkina*[1], Ihar Iskrou[2], Iryna Lendzina, Tatiana Lebedeva[3], Viktirya Smolnikova[3]

[1]Hematology Department №3, State Institution "minsk Scientific And Practical Center For Surgery, Transplantology And Hematology", Minsk, Belarus; [2]State Educational Institution "belarusian Medical Academy Of Postgraduate Education", Minsk, Belarus; [3]Clinical Diagnostic Laboratory Stkm, State Institution "minsk Scientific And Practical Center For Surgery, Transplantology And Hematology", Minsk, Belarus

Background:

Clinicians pay great attention to the cytogenetic and molecular genetic study of bone marrow cells in patients with myelodysplastic syndrome (MDS). Immunophenotypic examination of bone marrow cells helps us in verifying the diagnosis and subsequent monitoring of minimal residual disease. We have obtained statistically significant immunophenotypic and cytogenetic markers of poor prognosis in patients with MDS. Evaluation of the effectiveness of therapy taking into account them allows us to confirm their important in the choice of therapy.

Aims:

The aim of the study was to evaluate the effectiveness of therapy in adult patients with newly diagnosed MDS of unfavorable immunophenotypic and cytogenetic prognosis according to the developed algorithm for choosing therapy

Methods:

We conducted a prospective cohort study that included 62 patients with newly diagnosed MDS. Median age 65 years (37-81 years). The median overall survival was 1131 days. The median OS in the high-risk group according to the IPSS classification was 161 days, in the intermediate-2 risk group - 594 days, in the intermediate-1 risk group - 621 days, while in patients the median OS reaches 1471 days (p = 0.11). The median OS in the very high risk group according to the IPSS-R classification was 353 days, in the high and intermediate risk groups - 683 days and 594 days, respectively, while in patients in the low risk group the median OS reaches 1206 days (p = 0.08).

Using the model of three conditions "illness-death", we have identified immunophenotypic and cytogenetic markers of poor prognosis. We included conditions: diagnosis, transformation to leukemia, death. We have identified the following forecast risks:

- risk of poor prognosis without transformation: CD38<50% HR 3.7 (1.2-11.5 CI; p=0.022); complex cytogenetic aberrations >3 HR 5.8 (1.4-24.6 CI; p=0.015);

- risk of transformation to acute leukemia: CD71≥65% HR 4.1 (1.35-12.4 CI; p=0.013); CD13>75% HR 2.8 (1.1-7.1 CI; p=0.034);

- risk of poor prognosis after transformation: CD33<50% HR 6.6 (1.3-34.7 CI; p=0.026); cytogenetic aberrations >3 HR 0.22 (0.06-0.84 CI; p=0.027).

We have developed an algorithm for choosing therapy, taking into account markers of poor prognosis (the scheme of the algorithm is presented below). We carried out a comparative analysis of two equivalent groups (by gender, age, comorbidity) with newly diagnosed MDS in 27 patients. Both groups are equivalent according to IPSS (high, intermediate risk-2) and IPSS-R (very high, high, intermediate risk) classification, including identified

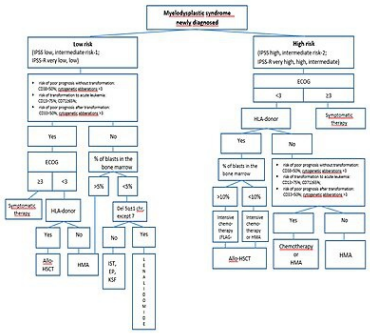
immunophenotypic and cytogenetic markers of poor prognosis (CD38<50%, CD71≥65%, CD13>75 %, CD33<50%, cytogenetic aberrations >3). Both groups of patients received therapy with hypomethylating agents, the 2nd group received therapy taking into account the newly developed algorithm for choosing therapy. Given the short follow-up period (6 months) of the second group, the definition of overall survival is not informative

Results:

After 4 courses of therapy with hypomethylating agents in patients with MDS with an unfavorable prognosis, partial remission and complete remission were achieved in 81.25% of cases treating according to the algorithm, against 25% of cases without algorithm (Fischer test p = 0.025). After 6 courses, partial remission and complete remission were achieved in 58.3% of cases treating according to the algorithm versus 35.7% without algorithm (Fischer test p=0.026)

Summary/Conclusion:

Identification of immunophenotypic and cytogenetic markers of poor prognosis in patients with newly diagnosed MDS is important when choosing therapy.



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