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P1574 ANTINEOPLASTIC THERAPY FOR HEMATOLOGIC MALIGNANCIES DURING COVID-19

Topic: 30. Infections in hematology (incl. supportive care/therapy)

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Background: During the COVID-19 pandemic patients with hematologic malignancies frequently have to interrupt specific antineoplastic therapy as a result of a positive SARS-COV-2 RNA PCR result and for evidence of viral pneumonia on chest CT. However, delaying or withholding specific therapy for significant time may cause progression of a hematologic malignancy and increase the risks of tumor resistance.

Aims: Analyze in-hospital overall survival and causes of death in COVID-19 patients during specific therapy for hematologic malignancies.

Methods: During the period of March 2020 – November 2021, 192 patients with hematologic malignancies having coronavirus infection underwent specific antineoplastic therapy at the hematology unit of Moscow clinical hospital #52. We analyzed in-hospital overall survival and the causes of death, depending on the disease entity of a hematologic malignancy, disease status, patients' age, Charlson comorbidity index and the intensity of specific antineoplastic therapy. The study included 93 patients with acute leukemias, 51 patients with non-Hodgkin's lymphoma, 30 patients with chronic lymphocytic leukemia and 18 patients with multiple myeloma. Median age was 55 years (19-92 years).

Results: In the acute leukemias group mortality was 25-82%, depending on the disease entity, disease status, age and intensity of the antineoplastic treatment. The most significant unfavorable prognostic factors were as follows: lack of acute leukemia remission (p=0.003), age above 65 years (p=0.002), Charlson comorbidity index > 6 (p<0,001). Infectious complications (24%) and severe coronavirus disease (60%) were the main causes of death in the acute leukemias group. In the group of patients who received chemotherapy for acute leukemia according to standard treatment protocols the rate of remission was higher, mortality was the lowest, and the risk of severe coronavirus disease was lower compared to patients who received specific antineoplastic therapy of lower intensity. In the non-Hodgkin's lymphoma group mortality was 30%. In 90% cases of death patients had no remission of their underlying disease. Among the causes of death, the most common were lymphoma progression (46%) and severe COVID-19 (47%). In the chronic lymphocytic leukemia and multiple myeloma group in-hospital mortality was 27% and 17% respectively, and in 100% cases deaths were caused by severe coronavirus disease.

Summary/Conclusion: The main risk factor for severe COVID-19 and death in patients with hematologic malignancies was lack of remission of the underlying disease. Therefore, specific antineoplastic therapy results in control over the neoplastic process, eventually reducing the risk of severe COVID-19. However, individual approach must be applied in the selection of antineoplastic treatment and its timing, and in evaluating the risks of coronavirus infection reactivation during immunosuppressive therapy.

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