THE TREATMENT WITH 5 AZACITIDINE IN MDS AND AML – PRACTICAL ASPECTS FROM THE CLINICAL EXPERIENCE OF COLENTINA CLINICAL HOSPITAL.

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The hypomethilating agents: azacitidine and decitabine have been approved by the FDA for use in patients with MDS. Although intensive therapy is preferred for patients with IPSS higher scores, hypomethilating agents are commonly used to treat patients with higher risk scores, which are not eligible for intensive therapy.
A meta-analysis of using hypomethilating agents for the treatment of MDS published in 2010, included data from 952 patients enrolled in clinical trials. Hypomethilating agents significantly improved overall survival (hazard ratio 0.72, 95% CI 0.60 to 0.85) and the combined endpoint of time to transformation to AML or death (hazard ratio 0.69, 95% CI 0.58 to 0.82). In a subgroup analysis of the drug, these benefits were observed for azacitidine, but not for decitabine. Azacitidine - azacytidine (5-azacytidine, 5-aza, Vidaza ™) is a pyrimidine nucleoside analogue of cytidine, which is believed to exert its beneficial effects / antineoplastic by causing DNA hypomethylation/ demethylation. This agent also has direct cytotoxicity on abnormal hematopoietic cells in the bone marrow. Azacitidine was approved by the FDA for use in patients with the following forms of MDS: RA or RARS (if accompanied by neutropenia or thrombocytopenia or requiring transfusions), RAEB, RAEB-T, and CMML.
Materials and Methods: We present the evolution under treatment with hypomethilating agents in 15 patients, diagnosed with intermediate/high risk MDS and AML in our Department between 2009-2015. Cytogenetic examination was performed in all cases and an abnormal karyotype was obtained in 5 cases: a woman with LAM post MDS with del (5) (q32; qter), two patients with MDS and complex karyotype, which included the del (5) (q32; qter); a karyotype 45, XY, rob (13; 15) (q10; q10); a karyotype 46, XX, t (2; 6) (p16; q22.1), t (5.11) (p14; q23.1), del (13) (q10; 14.1) and one patient with MDS 12 monosomy. The selected schedules were: 5-Aza 75 mg/m2/d, for 7 days, repeted every 28 days
Results: The overall response to 5-aza was heterogeneous, with significant differences in the percentage of blasts, with a complete response in patients with monosomy 12.
Conclusions: The data indicate similar results to those in the literature. The hypomethilating agents are a less toxic alternative to classical cytotoxic/antimetabolites agents.
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