CLINICO—MORPHOLOGICAL CHARACTERISTIQUE AND TREATMENT OF MYELODYSPLASTIC SYNDROMES

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The rising interest in the problem of myelodysplastic syndromes (MDS) is recently determined by the new data about the peculiarities of leukemic transformation of stem haematopoietic cells. MDS classification is still specified and problems of the therapy are discussed (4, 7, 8, 13).

In the present communication we demonstrate the clinicomorphological peculiarities and our experience with the treatment of MDS.

Material and methods

During a 10-year period, in the Haematologic Clinic of the Higher Institute of Medicine, Varna a total of 18 patients (12 males and 6 females) aged between 22 and 82 years with a mean age of 62.5 years were investigated. A MDS was diagnosed on the basis of clinico-morphological and cytochemical data as well. The following parameters were followed-up in these patients: hemoglobin, leukocyte count with differential blood picture, thrombocyte count, bone-marrow puncture, and in single patients only — trepano-biopsy, reaction for glycogen and peroxidase in blast elements, blood histamine level determined by spectrophotoflurimetry.

Diseases and states in which megaloblast haemopoiesis can be observed e. g. B_{12} or folic acid deficit, liver diseases, chronic ethylism and renal failure were excluded in all the cases.

Results and discussion

MDS kind was specified according to FAB classification criteria (4).

1. Refractory anaemia — 11 patients.
2. Refractory anaemia with blast «excess» in the bone marrow (between 0.06 and 0.20) — 2 patients.
3. Chronic myelomonocytic leukemia — 2 patients.
4. Refractory anaemia with «excess» of blast cells in transformation (more than 0.20 — 0.30 in the bone marrow and over 0.05 in the peripheral blood) — 3 patients.

Hemoglobin values were between 60 and 80 g/l in all the patients. They worebelew 40 g/l in two patients only. Mean erythrocyte volume was 117.8 ± 4.2^3 and thus over the normal value. Morphologically, macrocytosis and megalo-

cytosis was found out. There were ovalocytes and stomatocytes in two patients but basophilically punctated erythrocytes in other two ones. Erythroblasts in peripheral blood were observed in four patients (between 0.02 and 0.38).

Granulocyte count varied in single patients It was below 3.0×10^9/l in four cases, it was over 10×10^9/l in three ones and within normal limits (at the average $5.4 \pm 0.7 \times 10^9$/l) in the rest patients. Hyposegmentation as an anomaly in granulocyte morphology was established in one patient only. A transformation with appearance of younger cells (up to myeloblasts) in the peripheral blood (between 0.20 and 0.30) was established in three patients with refractory anaemia in the course os the disease. Blood histamine level was repeatedly followed-up within an interval of 2 — 6 months in order to exclude a myeloproliferative process in these patients. This index was far below the limiting value concerning chronic myelogenic leukemia of 1.00μ g/ml, namely between 0.044 and 0.150 μg/ml. The dynamic follow-up revealed lymphocytosis over 0.50 accompanied by a considerable lymphocytic infiltration in the bone marrow in 6 patients. In four of them, this abnormality preceded the clinical manifestation of an acute non-lymphoma (in the rest two). Monocyte number was 00.40 and 0.30, respectively, in two myelomonocytic leukemia patients. Thrombocyte count was subnormal in all the patients (107.6 ± 10.2 g/l).

Some features of the myelogram are stressed, indeed. There is an erythroblastic hyperplasia with signs of megaloblast haemopoiesis refractory to vitamin B_{12} or folic acid treatment in all the patients.

Serum iron levels are between 30 and 54μ mol/l in 11 patients and in normal limits in the rest.

The problem of the treatment of MDS patients is rather controversial. Some authors report a positive effect of alexan application at low dosages (3, 5, 6, 10, 12, 14, 15). Other investigators avoid the incorporating of cytostatic means. An attempt was made to treat three refractory anaemia patients by using of alexan at a dosis of 20 mg/m² daily for 21 days. However, no significant change of the clinical course of the disease and of haematological parameters in comparison with the treatment with corticosteroids and blood transfusions as in the rest patients could be observed. It has to be noted that this failure cannot reject this schedule of MDS treatment at all. On the contrary, the problem of the choice of MDS variants appropriate to such a treatment requires to be solved as soon as possible.

The evolution of the disease varies in single patients — from some months up to 10 years and more (in two cases). These patients need intensive care and they have been hospitalized many times (at the average 7 — 8 times yearly) due to the necessity for correction of the anaemic syndrome mainly.

In conclusion we point out that concerning their clinico-morphological manifestation MDSs are many-sided and thus pose diagnostic and therapeutic problems. Their possibility to transform into acute leukemia requires a dynamic follow-up of the patients as well as the introduction of new diagnostic methods (colony-forming capacity of early granulocyte and erythrocyte precursors and active search for chromosomal abberations) (1, 2, 8, 9, 11) into the clinical practice.

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КЛИНИКО-МОРФОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА И ЛЕЧЕНИЕ МИЕЛОДИСПЛАСТИЧЕСКИХ СИНДРОМОВ

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РЕЗЮМЕ

У восемнадцати больных с миелодиспластическими синдромами установлена морфологическая и цитохимическая характеристика периферической крови и костного мозга, а также и особенности клинического протекания. Для дифференциальной диагностики миелодиспластических синдромов и миелопролиферативных заболеваний использован критерий уровня гистамина в крови. У трех больных проведено лечение небольшими дозами алексана. В работе обсуждается терапевтический эффект препарата.