

**Original Paper**

# Contributions to the Study of Psychosocial Aspects in Hematologic Malignancies

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## REZUMAT

### *Contribuții la studiul unor aspecte psihosociale în hemopatiile maligne*

Hemopatiile maligne sunt afecțiuni severe, cu sfârșit letal dacă nu sunt tratate, care se însoțesc de un răspuns emoțional la stresul acut determinat de aflarea diagnosticului de hemopatie malignă și tratamentul acesteia, ce poate apărea în orice moment al bolii: comunicarea diagnosticului, începerea tratamentului, recăderea, ineficiența tratamentului, progresia bolii. Răspunsul emoțional poate îmbrăca mai multe aspecte: stare de șoc, negare, frică, pierderea speranței, anxietate, depresie, perturbarea dezvoltării personalității, alterări ale somnului și apetitului. Factorii care influențează răspunsul psihosocial sunt stabilitatea emoțională a persoanei anterior aflării diagnosticului și existența suportului social. Hemopatiile maligne asociază multe aspecte emoționale și sociale care necesită, pe lângă tratamentul specific al bolii (chimioterapie, radioterapie, transplant medular) și un tratament psihologic (agenți psihofarmacologici, psihoterapie individuală sau de grup) pentru adaptarea psihosocială și îmbunătățirea calității vieții acestor pacienți.

**Cuvinte cheie:** hemopatii maligne, distres emoțional, aspecte psihosociale

## ABSTRACT

Hematological malignancies are severe diseases, fatal when untreated, which associate an acute stress response described as an usual response to diagnosis and treatment of the hematologic malignancy, occurring at each transitional point of illness : communication of diagnosis, beginning of treatment, relapse, treatment failure, disease progression. The emotional response is characterized by shock, denial, fear, hopelessness, anxiety, depression, disturbance in the development of personality, sleep and appetite disturbances. The factors

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which influence the psychosocial response are the emotional stability of the person before diagnosis and the existence of a social support. Hematological malignancies associate many social and emotional aspects which impose, beside specific treatment (chemotherapy, radiotherapy, bone marrow transplantation), a psychological treatment (psychopharmacological agents, individual or group psychotherapy) for psychosocial adaptation and a good quality of life for these patients.

**Key words:** hematological malignancies, emotional distress, psychosocial aspects

## INTRODUCTION

Hematological malignancies are severe diseases, fatal when untreated, with a profound psychosocial impact on the patient, family members, friends and society. Scientific discoveries from the last years about the understanding of the pathophysiological mechanisms of hematological malignancies and the innovative modern treatment options (including bone marrow transplantation) have changed in a favourable way the evolution and the prognosis of patients with these diseases, but brought along other consequences on the quality of life, psychoemotional aspects and social insertion. The psychological manifestations are variable, occurring at each transitional point of illness: establishment and communication of diagnosis of the hematological malignancy, beginning of treatment, evolution and disease progression. The factors which influence the psychosocial response are the emotional stability of the person before diagnosis and the existence of a social support (family members, friends, colleagues). The communication of diagnosis determined an acute emotional stress of the patient, family members and friends, because they associated the hematological malignancy with a severe disease, a specific aggressive long-term treatment, frequent and unpleasant side effects (nausea, vomiting, hair loss, sexual dysfunction, neurological complications, neutropenia etc), lengthy hospitalisation, family separation, temporary or definitive loss of social insertion, financial burden. The emotional response of the patient and family to the diagnosis of the hematological malignancy is characterised by shock, disbelief, denial, anxiety, depression, sleep and appetite disturbances, difficulty in performing everyday activities (1, 2, 3). The decision to begin and the communication of the steps of a specific treatment and side effects of chemotherapy, radiotherapy, bone marrow transplantation, surgical procedures or interventions, determined fear and hopelessness of

the patient. The disclosure of medical information and the active involvement of the patient in decisions that affect him, communication between the doctor and the patient and the trust of the patient in the medical team have a major role in the success of treatment. The possibility of bone marrow transplantation, communicating the procedure and stages, presenting the risks and the benefits of this treatment determined several consequences, in the patient with a hematological malignancy treated with intensive chemotherapy with all side effects, from social isolation with a major body image disturbance and a sense of loss of control, a major life crisis with variable emotional responses, including fear for the procedure and the unknown, family isolation, anxiety or depression, to joy and hope for life (3, 4). The evolution and prognosis of the patient with hematological malignancy varies from long-term complete remission or cure to the development of a relapse after the disease – free interval, progressive disease and death. Hope, faith, trust, joy for life, the discovery a new system of values from remission are rapidly interchanged with anger, hopelessness, despair during relapse or evolution followed by complications (neutropenia, sepsis, neurological complications etc) (1, 5). The factors that may have an impact on the psychosocial response are represented by the psychosocial insertion and the emotional stability of the patient before the diagnosis of a hematological malignancy, patients with a good social insertion and emotional stability being the real “fighters” with disease; in contrast, patients with a poor insertion, emotional instability, with communication problems are bedraggled by the disease and its consequences (3). The family and the social support are very important, with those who are able to maintain close connections with family and friends during the course of illness being more likely to cope effectively with the disease than those who are unable to maintain such relationships (6, 7).

### Aim

The aim of the research was to study the psychoemotional aspects in the patients with hematological malignancies, on groups of age and evolution of disease, observing anxiety and depression emergence, the evolution of personality based on some psychological manifestations and the professional integration.

### MATERIALS AND METHODS

We studied 64 patients with hematological malignancies hospitalized in the Clinic of Hematology from Craiova, Romania (written informed consent obtained) on a period of two years, divided by groups of age, sex, area of origin, type of hematological malignancy, presence of psychoemotional aspects. We used three groups of study based on age: group A – age between 16 -25 years; group B – age between 25 - 60 years; group C - age bigger than 60 years. The sex and the area of origin repartition were relatively equal in the three groups. The study was made on patients with hematological malignancies, including acute and chronic leukemias and malignant lymphomas. The diagnosis of leukemia was established by morphology, cytochemistry and in some cases by immunophenotyping and cytogenetic exam. The diagnosis of malignant lymphomas was established by lymphonode biopsies, histopathological exam, immunohistochemistry and staging on pulmonary radiography, abdominal echography, computer tomography exam, bone marrow aspiration and biopsy. We determined the haemoglobin value, white blood count and leukocyte formula, platelet counts, peripheral blood smear, bone marrow smear, usual hemostasis tests, hepatic and renal tests, glycemia, serum proteins, seric LDH. For the psychoemotional aspects and personality evolution, Hamilton's and Woodworth-Mathews's scales and a questionnaire for professional integration were used. The Hamilton scale calculates a global index of depression, giving useful quantitative and qualitative information about depression. For depression, Hamilton's scale has 21 questions with answers worth of 0 – 4 points, following depressive disposition, feeling of guilt, suicidal ideas or attempts, insomnia types, somatic equivalences of anxiety, gastrointestinal symptoms, genital symptoms, hypocondriac ideas, weight loss, adaptation. For anxiety, Hamilton's scale has 12 questions with answers worth of 0 – 4 points points, following anxiety, psychic tension, cognition, sleep, somatic

and vegetative symptoms, behaviour at interview (8, 9). The Woodworth – Mathews questionnaire has 82 questions, at which the person must answer with yes or no; the questions are specially made that they may seem positive when the answer is no and negative when the answer is positive. The questions referred to excessive fatigue, environment adaptation, abnormal fears, emotional disposition, impulses, aggression etc. The questionnaire shows nine types of personality: 1 - emotivity (coefficient 28), 2 - obsessional and psychasthenic (coefficient 24), 3 - schizoid (coefficient 30), 4 - paranoid (coefficient 20), 5 – depressive and hypochondriacal (coefficient 26), 6 – impulsive and epileptic (coefficient 36), 7 – insecure psychobehaviour (coefficient 52), 8 – antisocial (coefficient 52), 9 – tendency for hiding the truth (coefficient 26). The result is calculated by adding the drafts multiplied by the adequate coefficients. Values below 120 are normal, values between 120-240 show visible tendency, values over 240 indicate disease. The questionnaire about school or professional integration evaluated the integration in the professional activity, school or professional performances, loss of interest for the professional activities, decreased attention, presence of memory disturbances, relationship with colleagues.

### RESULTS AND DISCUSSIONS

The three study groups had the following components: group A (age between 16-25 years) = 8 patients (5 cases with acute leukemia, one case of chronic myeloid leukemia, 2 cases of Hodgkin's disease); group B (age between 25-60 years) = 26 patients (6 cases of acute leukemia, 7 cases of chronic myeloid leukemia, 3 cases of chronic lymphocytic leukemia, 3 cases of Hodgkin's disease, 7 cases of non-Hodgkin's lymphomas); group C (age over 60 years) = 30 patients (2 cases of acute leukemia, 8 cases of chronic myeloid leukemia, 14 cases of chronic lymphocytic leukemia, one case of Hodgkin's disease, 5 cases of non Hodgkin's lymphomas). The scores for depression were bigger in the groups B and C; the stress of diagnosis communication and the changes in couple relationship were the bottom causes of depression. At six persons from group B and three persons from group C symptoms of masked depression were present. The distribution of scores for anxiety was heterogenous in the three groups. Three patients from group A presented emotional instability and two from group

Table 1. The distribution of relevant psychological manifestations based on age groups

No. crt.	Symptoms	Group A (no. cases)	Group B (no. cases)	Group C (no. cases)
1.	Culpability	2	14	21
2.	Fear of being deserted	6	8	8
3.	Other phobias	1	10	2
4.	Depression	1	20	2
5.	Paranoid	0	2	1
6.	Obsessive, impulsive	2	3	0
7.	Cognitive deficiency	0	2	16
8.	Sleep disturbances	1	12	26
9.	Suicidal attempt	1	1	0

B developed simple emotivity. The distribution of relevant psychological manifestations, based on age groups (Table 1), showed an increased emotional response related to the fear of being deserted, isolated from family and friends, impulsive and suicidal tendencies in group A, in the younger patients with emerging personality, emotionally more unstable, in the recently formed couples. In the patients with active age (group B) with family and family responsibilities, with a high socio-professional insertion, the feelings of culpability, depression and failure, sleep disturbances, fear of losing their job, decreased income and of family isolation were predominant. The patients from group C (mostly pensioners) showed predominant feelings of culpability, sleep disturbances, cognitive deficiencies, the fear of being deserted. In almost half of the cases from group C, capitulation in front of disease and evolution appeared; at three patients, obsessive religious concerns appeared. The evaluation of integration in school or in the socio-professional activity showed that three of five patients from group A with school with acute leukemias interrupted school temporarily due to long-term hospitalization, complications induced by chemotherapy, fatigue, body image disturbance. Two patients continued studies in complete remission with a decreased interest of study, shallowness, listlessness or aggression in the relationships with colleagues. In all cases, the attitude of colleagues was positive. Patients aged 18 to 26 interrupted temporarily or definitively their activity (four of them presented problems related to adaptation and social insertion, which imposed giving up the professional activity); eight patients in complete remission continued their activity, three of them with changes in work site. The attitude of

colleagues was positive, sometimes even protective. A real problem was differentiating psychoemotional responses from psychiatric disorders. In one case, acute leukemia appeared in a patient with schizophrenia and major problems of communication emerged, especially as the patient's mother was schizophrenic too and the father decided to abandon the family. Four patients with hematological malignancies developed severe depression and needed psychiatric treatment. The management of psychosocial problems of the patients with hematological malignancies included anxiety, depression, body image disturbances, pain, disease or specific treatment complications (nausea, vomiting, hair loss, sexual dysfunctions) that required anxiolytics, antidepressive, pain relievers, antiemetics, psychotherapy, family involvement for improving the quality of life of these patients and insertion in family and society.

## CONCLUSIONS

1. The acute emotional stress is present in all patients with hematological malignancies, with variable manifestations from anxiety, depression, personality disturbances to suicidal tendencies and the development of real psychiatric disorders.

2. The factors which influence the psychosocial responses of the patients with hematological malignancies are the emotional stability of the person before diagnosis, the sociocultural level and the existence of family and friend support.

3. The creation of a psychological personal record and of a different approach of the patients based on the types of personality in the communication of diagnosis, treatment stages and evolution of

disease is necessary.

4. The inclusion in the medical team from hemato-oncology clinics of a medical psychologist is essential for assuring the psychoemotional support of the patients and members of the family on the full evolution of disease.

5. The individual approach of the patient must be based on the specific particularities of the age group.

6. The association of an anxiolytic or anti-depressive treatment, individual and group psychotherapy to the patients with hematological malignancies are necessary for overcoming the moment of diagnosis, beginning of treatment and assuring the psychological support in the relapse or progression of disease or in socio-professional insertion in the case of a complete remission.

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