

ОЦЕНКА ЭФФЕКТИВНОСТИ ПРИМЕНЕНИЯ ТРАНСФУЗИИ ТРОМБОЦИТНОГО КОНЦЕНТРАТА ПАЦИЕНТАМ С ОСТРЫМ МИЕЛОИДНЫМ ЛЕЙКОЗОМ НА ФОНЕ ХИМИОТЕРАПИИ

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Целью данной работы является изучения эффективности применения тромбоцитного концентрата у пациентов с острым миелоидным лейкозом в период применения цитостатической терапии. Острый миелоидный лейкоз развивается быстро, протекает остро и без необходимого лечения приводит к быстрой смерти пациента. Уровень пятилетней выживаемости у данной категории пациентов составляет 15-70%. Исследование проводилось на базе ГБУЗ КОД №1. Применялись методы наблюдения и сравнения. Для исследования были отобраны данные 25 пациентов с диагнозом острый миелоидный лейкоз. В исследование было включено 14 мужчин и 11 женщин. Возраст пациентов варьировал в промежутке от 27 до 76 лет. Применение тромбоцитконцентрата и/или эритроцитарной взвеси является неотъемлемым компонентом интенсивного лечения данной категории пациентов в условиях гематологического отделения. Трансфузионное введение тромбоцитного концентрата является единственным способом поддержания тромбоцитов на уровне, безопасном для состояния пациента.

Ключевые слова: миелоидный лейкоз, цитостатическая терапия

EVALUATION OF PLATELET CONCENTRATE TRANSFUSION TO PATIENTS WITH ACUTE MYELOID LEUKEMIA DURING CHEMOTHERAPY

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The aim of this work is to study the effectiveness of the use of platelet concentrates in patients with acute myeloid leukemia in the period of application of cytostatic therapy. Acute myeloid leukemia develops quickly. It is acute and leads to rapid death of the patient without proper treatment. Five-year survival rate in these patients is 15-70%. The study was conducted on the basis of State budget health facility Regional Oncology Center №1. We used the methods of observation and comparison. The data were selected from 25 patients with acute myeloid leukemia. The study included 14 men and 11 women. Age of patients ranged in an interval from 27 to 76 years. Application either of platelet concentrate or erythrocyte suspension is an integral component of intensive

treatment of such patients in hematology department. Platelet concentrate transfusion is the only way to maintain platelet counts at the proper level.

Keywords: myeloid leukemia, cytostatic therapy

INTRODUCTION: Sharp myeloid leukosis is a malignant hemopoietic disease, caused by early predecessors of a hematopoiesis stopping a further differentiation at the earliest stages of development. Its main diagnostic criterion is a violation of more than 20% of blasts in marrow. The sharp myeloid leukosis is the most widespread malignant myeloid disease of adult age. Incidence increases from 3,1 cases by 100 thousand population in age 50–54 years to 23,1 cases among persons older than 60 years [1]. Generally, population incidence of a sharp myeloid leukosis is 3,6 on 100 thousand people. Results of treatment were analyzed separately for groups of young patients (18–60 years) and elderly (60 and older). 30-35% of adult population aged up to 60 years live longer than 5 years after chemotherapy and are considered as cured. Despite the significant progress in the therapy of a sharp myeloid leukosis, two thirds of young people still die of this pathology.

The factors, making an influence on the results of treatment (an exit in remission, the common survival), can be subdivided into patient's clinical and health characteristics and a tumoral clone characteristics. It's important to make an intensive chemotherapeutic treatment for patients older 60 years. Factors, describing acute myeloid leukosis, are presented by :1. Level of leukocytes at the diagnostic time; 2. The previous myeloid dysplastic syndrome; 3. the previous cytotoxic therapy ; 4. The cytogenetic and molecular changes in leucemic cells; 5.splenomegaly; 6. increase of lactatedehydrogenase's level [3]

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Factors, describing acute myeloid leukaemia, are presented by :1. Level of leukocytes at the diagnostic time; 2. The previous myeloid dysplastic syndrome; 3. the previous cytotoxic therapy ; 4. The cytogenetic and molecular changes in leucemic cells; 5.splenomegaly; 6. increase of lactatedehydrogenase's level [5]. Decrease of clinical and hematological parameters is one of the major complications of chemotherapy of patients with acute myeloid leukemia. It is often accompanied by such complications as infectious agranulocytosis and thrombocytopenic hemorrhagic syndrome [2]. It is possible to prevent infectious complications and reduce their severity by the use of antibacterial, antiviral and antifungal therapy. Platelet concentrate transfusion is the only one way to prevent hemorrhagic complications.

METHODS AND MATERIALS: The study was conducted on the basis of State Budgetary Healthcare Institution Regional Cancer Clinic №1. We used the methods of observation and comparison. The data were presented by 25 patients with acute myeloid leukemia. The structure of the complaints of patients during the study was presented by weakness - 94%, fatigue - 97%, fever - 20%, headache - 57% . The lack of a history of previous blood and platelet concentrate transfusion was a criterion for inclusion in the study. 9 patients used a circuit "7 + 3" , presented by cytarabine (100 mg / m² of 2 times a day) from day 1 to 7 and idarubicin intravenous administration (12 mg / m²) from 1 to 3 day to induct a remission. 17 patients had a course of high-dose chemotherapy, which indispensable element was a cytarabine itself or its combination with anthracyclines. Platelet count in the peripheral blood lower 10 x 10⁹ / L or hemorrhagic syndrome were the indications for the transfusion. The purpose of platelet concentrate transfusion is to neutralize thrombocytopenia or relief hemorrhagic syndrome.

RESULTS AND DISCUSSION: The study included 14 men and 11 women. Age of patients ranged in an interval from 27 to 76 years. Platelet concentrate transfusion was effective in 56% of cases (platelet level in peripheral blood was higher than 10 x 10⁹ / L), in 44% its level remained low or its change was insignificant. Leukopenia was observed in 87% of cases at the time of remission induction. The level of white blood cells didn't have the reference range or was slightly reduced in 56% of cases in the period following the completion of the course of chemotherapy . The reduction of complaints was noted in the 2nd and subsequent days after a course of chemotherapy and was observed in 45% of cases. Myelodepression after cytostatic therapy was observed in 32% of cases.

CONCLUSIONS: Application either of platelet concentrate or erythrocyte suspension is an integral component of intensive treatment of such patients in hematology department. Platelet concentrate transfusion is the only way to maintain platelet counts at the proper level.

REFERENCES:

1. Лендина И.Я и соавт. Острый миелоидный лейкоз: современные подходы к диагностике и лечению (обзор литературы) //Проблемы здоровья и экологии.-2011.-№1(27), С.29-34
2. Грицаев С. В. и соавт. Клинико-гематологическая характеристика и особенности лечения больных острым миелоидным лейкозом с длительностью полной ремиссии более 36 мес //Гематология и трансфузиология.-2014.-№3(59). С.4-11
3. Просекова Е. В. и соавт. Клинико - лабораторная характеристика и оценка эффективности терапии хронического миелоидного лейкоза на территории приморского края//Медицина и образование в Сибири.-2013.-№1,С.29
4. Владимирова С. Г., Тарасова Л. Н., Скольская О. Ю. Показатели гемостаза у больных острым миелоидным лейкозом в период манифестации заболевания//Онкогематология.-2012.-№2. С.36-42
5. Зуховицкая Е. В., Фиясь А. Т. Новые подходы в диагностике и терапии острых миелоидны лейкозов//Журнал Гродненского государственного медицинского университета.-2016.-№3 (55), С. 44-51.