



VI. ULUSLARARASI KATILIMLI DENEYSEL HEMATOLOJİ KONGRESİ 19-21 NİSAN 2019 – GAZİANTEP NOVOTEL

THE USE OF MOLECULAR BIOLOGY METHODS IN EVALUATING HEMATOLOGIC DISEASES

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GİRİŞ - AMAÇ

Leukemia is a malignant disease originating from lymphopoietic or hematopoietic stem cells of bone marrow. Leukemias are classified as acute or chronic, based on the spread and development characteristics of the tumor. Leukemias exhibit phenotypic and genotypic heterogeneity according to their classification. Therefore, hematology is one of the sciences that most frequently use molecular biology tests

METOD

Although the classification and risk assessment are mainly based on cytogenetic analysis, molecular tests play a complementary role. The most commonly used tests include conventional karyotyping, fluorescent in situ hybridization (FISH), polymerase chain reaction (PCR)-based single nucleotide polymorphism analyses (RFLP, ARMS etc.), comparative genomic hybridization (CGH), and sequence analysis methods. Molecular Biology Tests (MBT) have become essential for the final diagnosis of malignant diseases, as well as determining the prognosis and even selection of treatment methods. Although cytogenetic and molecular indicators play a key role in determining the risk status of patients, there are also other prognostic indicators in long-term remission. The treatment response can also be evaluated by carrying out morphological, cytogenetic and MBT on bone marrow samples collected at various times throughout the treatment period.



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BULGULAR

In practice, MBTs can be used in the diagnosis and follow-up of benign hematologic disorders (hemoglobinopathies etc.) as well as malignant diseases. MBTs are also frequently used in the diagnosis of congenital or acquired hemolytic anemias, hemophilia, thrombophilia and platelet disorders.

SONUC

Therefore, it is possible to say that the genetic parameters obtained using different MBTs are of the most importance in the diagnosis, treatment and follow-up period of prevalent malignant or benign hematologic diseases.

ANAHTAR KELİMELE

Hematology, Leukemia, MBT, PCR