Objective: Next-generation sequencing (NGS)-based technologies are novel methodologies for the diagnosis, prognostic assessment and decision of individualized treatment strategy in hematological neoplasia. NGS led to a more comprehensive understanding of the mutational landscape, especially in the myeloid neoplasms. Herein, we present the results of the patients who underwent NGS with the suspicion of myeloid neoplasia. **Methodology:** Retrospective data from a total of 13 patients were analyzed who were diagnosed between 01.10.2018 and 01.06.2021. There were four myeloid panels in the NGS. Panel 1 consists of ASXL1, CALR, CBL, CEBPA, CSF3R, and DNMT3A mutations. Panel 2 consists of EZH2, FLT3, IDH1, IDH2, JAK2, KIT, KRAS, and MPL mutations. Panel 3 consists of NPM1, NRAS, RUNX1, SETBP1, and SF3B1 mutations. Panel 4 consists of SH2B3/LNK, SRSF2, TET2, TP53, U2AF1, ZRSR2 mutations. **Results:** Median age was 48. Diagnoses were AML (n=7), AA (n=1), MDS (n=2), DLBCL (n=1), MM (n=1), and Evans syndrome (n=1). Seven cases with malignant diagnoses were eligible for intensive therapy. There were no mutations detected by NGS in MM, AA, DLBCL, and Evans syndrome cases. Biallelic CEBPA mutation accompanied FLT3 mutation in 1 case. IDH1 and NPM mutation were detected in 1 APL case. MPL, SRSF2, ASXL1, CBL, U2AF1, SF2B1, and TET2 were mutations detected in cases with dysplasia. **Conclusion:** In our cohort, NGS did not add any significant information in the lymphoid malignancies and benign hematological cases. NGS helped to define the allelic ratio of FLT3+ mutations and helped to accurately define the ELN risk of AML. Mutations that were detected in the cases with dysplastic bone marrow findings were concordant that were reported in the literature. Larger case series are needed in order to define the therapeutic and prognostic implications.

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PP 08

INAPPROPRIATE ADH SYNDROME OCCURING DURING B-ALL TREATMENT

Merih Reis Aras [1], Senem Maral [1], Hacer Berna Afacan Ozturk [1], Pinar Tiglioglu [1], Mesut Tiglioglu [1], Bugra Saglam [1], Fatma Yilmaz [1], Mustafa Onder [2], Murat Albayrak [1]

[1] *University of Health Sciences Ankara Diskapi Yildirim Beyazit Training and Research Hospital, Hematology Department*
[2] *University of Health Sciences Ankara Diskapi Yildirim Beyazit Training and Research Hospital, Family Medicine Department*

Case report: Inappropriate ADH syndrome is a cause of hyponatremia with increased ADH secretion despite normal plasma osmolality and euvolemic state.There are many related drugs in its etiology.Inappropriate ADH syndrome occured in two B-ALL diagnosed patient during cyclophosphamide and vincristine treatment regimen.The detection of inappropriate ADH syndrome in both patients with euvolemic hyponatremia shows the importance of reviewing the drugs used by the patient in the etiology of hyponatremia.

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PP 09

T-ACUTE MYELOID LEUKEMIA CASE THOUGHT TO BE ASSOCIATED WITH RADIOIODINE (I^{131}) TREATMENT

Merih Reis Aras [1], Pinar Tiglioglu [1], Mesut Tiglioglu [1], Bugra Saglam [1], Fatma Yilmaz [1], Neslihan Olgun [2], Senem Maral [1], Hacer Berna Afacan Ozturk [1], Murat Albayrak [1]

[1] *University of Health Sciences Ankara Diskapi Yildirim Beyazit Training and Research Hospital, Hematology Department*
[2] *University of Health Sciences Ankara Diskapi Yildirim Beyazit Training and Research Hospital, Family Medicine Department*

Case report: Ionizing radiation and chemotherapeutic agents can cause carcinogenic effects by causing DNA damage.A 40-year-old female patient diagnosed with thyroid papillary carcinoma in 2016 and subsequently administered 150 mCi radioiodine (I^{131}). Leukocytosis was detected in the examinations performed due to urinary system infection. She was diagnosed t(9:22) p210 positive AML M1-2. The patient had a history of Stargardt Syndrome.Development of t-AML after radioiodine treatment is very rare.

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PP 10

FLT3-ITD POSITIVITY IN AML; CASE SERIES

Kemal FİDAN

Erciyes University, Faculty Of Medicine, Department Of Hematology

Objective: Diagnosis of AML requires additional procedures, including pathological examination, immunophenotyping, cytogenetic examination, and molecular diagnosis. The determination of the specific cytogenetic abnormality is important for the selection of appropriate treatment and prognostic analysis.The 2 most common mutations of the FLT3 gene are FLT3-ITD and FLT3-D835. Here, we will present FLT3-ITD positive AML cases admitted to our clinic between 2019-2021. **Case report:** We have 5 cases of AML FLT3-ITD heterozygous. In all our cases, Midastaurin was given with 7+3 chemotherapy (CT) in the initial treatment. While 1 of our cases went into remission, the other 4 relapsed. All of the patients who relapsed were given FLAG CT, no remission was achieved and they were switched to ADE CT. Remission was achieved in 2 of 4 patients, 2 of them were refractory. One patient was given gilteritinib. HSCT was performed in 2 patients. While 2 of our