retinoblastoma. **Conclusion:** MPO deficiency may occur primarily as well as secondary. A number of point germ line mutations cause primary MPO deficiency. Most patients asymptomatic without an increase in infection. Severe infectious complications were not observed in any of our patients. We wanted to emphasize that MPO deficiency should also be kept in mind in patients whose neutropenia etiology was investigated.

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LEUKEMIA

PP 66

CHARACTERISTICS AND OUTCOME OF T(8;21)-POSITIVE CHILDHOOD ACUTE MYELOID LEUKEMIA: A SINGLE INSTITUTION'S EXPERIENCE

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Objective: Compared with other cytogenetic acute myeloid leukemia (AML) groups, patients with core-binding factor AML (CBF-AML) are considered as a favorable AML risk group based on their high remission rate and survival probabilities. However, up to 30-40% of these patients can still relapse after standard intensive induction and consolidation chemotherapy. **Methodology:** From 2004 to 2020, 147 AML patients reviewed. Ten of 147 patients were followed up with t(8;21) chromosomal anomaly. The t(8;21)(q22;q22) was detected by reverse transcription polymerase chain reaction (RT-PCR) and/or floresan in situ hibridizasyon (FISH). We analyzed patients' demographic data: sex, white blood cell count at diagnosis, central nervous system status, additional cytogenetic anomaly and recurrence rates, stem cell transplant status and survival rates. **Results:** Two of 10 patients were female. The median age was 10 years (3-17 years). Median followup was 36 months (2-114 months). The mean white blood cell count of 10 patients was 21.5 ($\times$ 109/l) at diagnosis. One out of 10 patients had granulocytic sarcoma and 2 had central nervous system involvement. Additional cytogenetic anomalies were detected in 90% of the patients, of which 2 relapsed and 3 died. One patient received hematopoietic stem cell transplantation and died because of HSCT complications. **Conclusion:** Recent studies show that CBF-AML includes different groups with different clinical outcomes. We found that 50% of our patients achieved complete remission and 50% experienced relapsed disease or death. After we were able to monitor the t(8;21) level with RT-PCR, we diagnosed relapsed disease in 1 patient with additional cytogenetic anomaly. RT-PCR is essential for optimal handling of these patients to predict patients' relapse risk and to detect minimal residual disease.

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PP 67

BK-VIRUS ASSOCIATED HAEMORRHAGIC CYSTITIS CONCOMITANT WITH CHEMOTHERAPY IN AN ADOLESCENT GIRL WITH ACUTE LYMPHOBLASTIC LEUKEMIA

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Case report: Haemorrhagic cystitis (HC) is characterized by focal or diffuse haemorrhagic and inflammatory changes of the bladder mucosa. Polyoma BK virus (BKV) infection is an important underlying condition that provokes hematopoietic stem cell transplantation (HSCT)-related HC. Although commonly reported in transplant recipients, BKV associated HC, and tubulointerstitial nephritis rarely occurs in paediatric acute lymphoblastic leukemia (ALL) patients receiving chemotherapy. A 15-year-old girl diagnosed with T cell ALL, receiving high-risk chemotherapy protocol, complained about dysuria and lower abdominal pain with macroscopic haematuria. Her complaints started under meropenem, teicoplanin, amikacin, and caspofungin treatment due to neutropenic fever with severe mucositis. There wasn't any bacterial growth in the urine or blood culture. PCR analysis detected 2,2 $\times$ 109 copies/mL of BKV in urine. The antibiotics other than ciprofloxacin were discontinued. Her complaints are alleviated day by day. She did not experience any urinary symptoms or haematuria, and the BKV copy number declined to 3,3 $\times$ 107 copies/mL during follow-up.Contributing factors of BKV associated HC are highly relevant in HSCT recipients. However, patients receiving intensive chemotherapy may have similar conditions. A predisposing and potential manageable factor such as BKV should be searched in paediatric haematology practice.

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PP 68

A CASE OF METHOTREXATE-INDUCED PHOTOSENTIVITY REACTION

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Case report: Methotrexate is an essential drug effectively used in acute lymphoblastic leukemia. Doses above 500 mg/m2 are defined as high-dose methotrexate (HDMTX). Since HDMTX is known to cause serious morbidity, it is given with a standard

rescue therapy to prevent toxicity. Besides myelosuppression and mucositis, other side effects of methotrexate are hepatotoxicity, erythema, desquamation, allergic reactions and neurotoxicity. Methotrexate is also associated with radiation recall and false photosensitivity. A 10-year-old girl with pre-B ALL underwent hematopoietic stem cell transplantation two times due to marrow and central nervous system (CNS) relapse. On the follow-up, 3 months later she had a bone marrow relapse. After remission obtained with high dose chemotherapy, maintenance treatment was given due to relapse/refractory disease. One year later she had isolated CNS relapse again and treated with intrathecal methotrexate, Ara-C and dexamethasone. The patient was started on relapse/refractory maintenance therapy, and 1 g/m2 methotrexate was given every 4 weeks. Immediately after intravenous methotrexate was given to the patient in the 13th week of her treatment, she complained of burning, pain and redness in the areas that had previously been desquamated due to sunburn. No additional treatment was given, except alkaline hydration and calcium folinate, when the findings were observed. The patient was started on antihistamine therapy. Methotrexate drug level reached 0.02 umol/L at the 54th hour, the i.v. hydration was stopped. The patient's red and itchy lesions healed within 2 days by benefiting from the antihistamine. She is being followed-up at our outpatient clinic weekly chemotherapy without any sign of relapse. This sunburn-like erythema after methotrexate administration might be associated with impaired mononuclear cell response in sun-exposed tissues. Our case stated that he went to the sea two weeks ago and that the bullae secondary to the sunburn that developed afterwards peeled off after they burst. In conclusion, patients with a history of recent generalized sunburn should have their methotrexate delayed to avoid this complication.

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PP 69

UNUSUAL METABOLIC COMPLICATIONS OF CHILDHOOD ACUTE LYMPHOBLASTIC LEUKEMIA: HYPERCALCEMIA, HYPERAMONEMIA, LACTIC ASIDOSIS

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Case report: We present three children with precursor B acute lymphoblastic leukemia (ALL). The first one had malignancy associated hypercalcemia at diagnosis. The second one experienced hyperamonemia during induction. Both of them had been treated successfully. The last one had refractory leukemia and died because of lactic acidosis due to extensive infiltration of the liver by tumor cells. The rare but potential fatal metabolic complications of ALL needs high clinical suspicion and prompt treatment.

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PP 70

CENTRAL HYPOTHROIDISM DUE TO ACUTE LYMPHOBLASTIC LEUKEMIA WITH CENTRAL NERVOUS SYSTEM INFILTRATION

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Case report: We describe a five-year-old girl with high risk B precursor acute lymphoblastic leukemia with central nervous system involvement. Laboratory tests suggested the presence of central hypothyroidism (thyroid-stimulating hormone [TSH]: 0.30 mU/ml, normal range 0.64–6.27 mU/ml; serum free thyroxine [FT4]: 0.70 ng/dl, normal range 0.86–1.4 ng/dl). Magnetic resonance imaging detected heterogeneous contrast enhancement of pituitary gland in addition to cerebral and cerebellar atrophy.

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PP 71

BONE AS A SITE OF EXTRAMEDULLARY DISEASE IN ACUTE LYMPHOBLASTIC LEUKEMIA

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Case report: We describe 3 children with pre B acute lymphoblastic leukemia (ALL).The first two were evaluated in orthopedic clinics because of limping due to ischium involvement and bone fracture suspicion due to involvement of upper limb bones.As a result of normal hemograms in both cases, leukemia diagnosis delayed.The third patient experienced bone marrow and vertebral column relapse of ALL presenting with nuchal rigidity mimicking meningitis.Bone should be considered as a site of extramedullary disease.

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PP 72

A CHALLENGE IN PEDIATRIC ACUTE LEUKEMIA TREATMENT: UNEXPECTED, PROLONGED CYTOPENIA. IS IT BE CALLLED 'INCOMPLETE HLH'?

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Objective: The diagnostic criteria set for HLH may look like symptoms of cancer or a severe bacterial infection common occurring when patients are immunosuppressed due to