OTHER DISEASES

PP 46

DOES BLOOD TYPE HAVE AN EFFECT ON THE COURSE OF COVID-19?

Fatma YILMAZ [1], Murat ALBAYRAK [1],
Abdülkerim YILDIZ [2],
Hacer Berna AFACAN ÖZTÜRK [1],
Senem MARAL [1], Pınar AKYOL [1],
Merih REİS ARAS [1], Buğra SAĞLAM [1],
Mesut TIĞLIOĞLU [1]

[1] *University of Health Sciences, Diskapi Yildirim Beyazit Training and Research Hospital, Department of Hematology*
[2] *University of Hitit,Erol Olçok Training and Research Hospital, Department of Hematology*

Objective: Predictive parameters that can affect the course of this infection have been the main topic of research since the beginning of the COVID-19 (Coronavirus disease 2019) pandemic. Since the discovery of blood groups, the effect of these on infectious diseases has always been of interest **Methodology:** To analyze the effect of ABO blood group on mortality, hospitalization duration and hematological and cytokine storm parameters in patients with COVID-19. This retrospective study was conducted on 140 patients diagnosed with COVID-19. Demographic characteristics, laboratory parameters including ABO blood group, complete blood count (CBC) parameters, biochemical tests, cytokine storm parameters, duration of hospitalization, and final status (discharge or death) were recorded. **Results:** The 140 patients included in the analysis comprised 72 (51.4%) males and 68 (48.6%) females with a mean age of 66.3±14.0 years. . Age and gender, hospitalization duration and mortality rates were similar in all blood group types. Only D-dimer values were found to be higher in blood group A compared with other blood groups. **Conclusion:** Although no difference in mortality was determined between groups, the D-dimer level was statistically significantly higher in COVID-19 patients with A blood group. Larger studies are needed to reflect D-dimer levels on the clinical course of infection, and thus on daily practice

https://doi.org/10.1016/j.htct.2021.10.1056

PP 47

RECURRENT AUTOIMMUNE HEMOLYTIC ANEMIA AFTER MRNA COVID-19 VACCINE (PFIZER-BIONTECH)

Fatma YILMAZ, Murat ALBAYRAK,
Merih REİS ARAS, Senem MARAL,
Hacer Berna AFACAN ÖZTÜRK,
Pınar TIĞLIOĞLU, Mesut TIĞLIOĞLU,
Buğra SAĞLAM

Health Sciences University Diskapı Yıldırım Beyazit Training and Research Hospital, Hematology Clinic

Case report: One of the causes of autoimmune hemolytic anemia is drugs. Vaccination is the most important step in the management of the COVID-19 pandemic. After receiving the m-RNA COVID-19 (Pfizer-BioNTech) vaccine, the patient admitted with weakness and jaundice for the last three days. Laboratory results are consistent with AIHA recurrence. Splenectomy was performed after the patient stabilized with rituximab therapy. Especially newly developed therapeutic agents have a potential risk of new side effects.

https://doi.org/10.1016/j.htct.2021.10.1057

PP 48

EXTRAMEDULLARY HEMATOPOIESIS IN PATIENTS WITH TRANSFUSION DEPENDENT β-THALASSEMIA (TDT): A SYSTEMATIC REVIEW

Eihab Subahi [1], Fateen Ata [1], Hassan Choudry [2],
Phool Iqbal [1], Mousa AlHiyari [1],
Ashraf Soliman [3], Vincenzo De Sanctis [4],
Mohamed Yassin [1]

[1] *Hamad Medical Corporation*
[2] *Faisalabad Medical University*
[3] *University of Alexandria*
[4] *Quisisana Hospital*

Objective: Thalassemia is one of the most common hemoglobinopathies, with around 5% of the world's population expected to have some degree and type of thalassemia. Beta thalassemia (BT) occurs due to a deficient production of the beta-globin chain of hemoglobin. Extramedullary hematopoiesis (EMH) is one of the complications of BT, mainly observed in minor/intermedia subtypes. EMH is the production of blood cells outside the marrow as a compensatory response to long-standing hypoxia. Due to chronic transfusions, it is not expected in patients with beta-thalassemia major (BTM). However, there are increasingly reported cases of EMH in BTM. The incidence of EMH in BTM is thought to be <1%. However, it seems that the true incidence is much higher than expected. This review aims to pool the available data and provide cumulative evidence on the occurrence of EMH in BTM patients. **Methodology:** We aim to conduct a systematic review via searching multiple electronic databases (PubMed, Scopus, Google Scholar) to identify eligible articles from any date up to December 2020. Eligible studies should report extramedullary hematopoiesis in beta-thalassemia major. Case reports, case series, observational studies with cross-sectional or prospective research design, case-control studies, and experimental studies will be included if found relevant. Two reviewers (FA and ES) will individually analyze the study quality using the statistical methodology and categories guided by the Cochrane Collaboration Handbook, PRISMA guidelines, and Joanna Briggs Institute checklist for case reports and series. **Results:** Data from 253 cases of EMH in BTM patients were extracted with mean age of 35.3 +/- 0.5 years. Mean hemoglobin at presentation with EMH was 8.2 +/- 2.1 mg/dL. Lower limb weakness was the most common presenting feature (N=23) (paraspinal EMH). Magnetic

resonance imaging (MRI) was the most widely used diagnostic modality (N=226). Overall, blood transfusion was the commonest reported treatment (N=30), followed by radiotherapy (N=20), surgery (N=15), hydroxyurea (N=12), steroids (N=6), and exchange transfusion (N=2). An outcome was reported in 20% of patients, all recovered, with no reported mortality. **Conclusion:** EMH is considered a rare phenomenon in BTM patients. It can occur in any organ system with varied clinical features. MRI can effectively diagnose EMH, and conservative management has similar results compared to invasive treatments. Larger studies, focusing on outcomes may enhance guidelines on preventive and therapeutic strategies for managing EMH in BTM.

https://doi.org/10.1016/j.htct.2021.10.1058

PP 49

LATE DIAGNOSIS OF CONGENITAL METHEMOGLOBINEMIA IN A 33-YEAR-OLD CYANOTIC PATIENT, CASE REPORT AND REVIEW OF LITERATURE

MAYA ALDEEB, MOHAMED YASSIN

Hamad Medical Corporation

Objective: Due to mild symptoms, congenital methemoglobinemia is rarely diagnosed and reported as a cause of the cyanosis, especially in adults. Despite the benign nature of congenital methemoglobinemia, it is crucial to keep it in the differential diagnosis list when assessing cyanotic patients, mainly if he has a normal PaO2. Patients are usually asymptomatic and are treated for cosmetic purposes, but they might suffer from severe complications if exposed to oxidative agents. **Case report:** A 33-year-old lady presented to ED with difficulty breathing and bluish discoloration gradually increased over days, without fever or cough. she mentioned having recurrent similar episodes since childhood. family history positive for similar episodes in the sister. physical examination positive for central and peripheral cyanosis, with o2sat of 88% and RR of 20, the rest of examination within normal limits. laboratory tests normal except for ht 48.9%, PO2 160 on ABGs. **Methodology:** The patient's clinical picture of cyanosis with no evidence of cardiovascular or pulmonary diseases and the discrepancy between PaO2 and O2 saturation on oximeter required thinking of methemoglobinemia as a possible diagnosis despite the patient's age and the absence of any exposures. Methemoglobin level 20.9% (0-1.5%). Hemoglobin electrophoresis did not detect any abnormal hemoglobin. The activity of NADH cytochrome b5 reductase or the level were not done. **Results:** We searched PubMed and Google Scholar, we found 22 articles with a total of 30 patients with congenital methemoglobinemia. The mean age of the patients was 25 years (range 2 days-61 years); most of them were previously healthy. Out of 30 patients, 16 were treated with ascorbic acid or methylene blue or both with improvement, 14 either were not treated or treatment not mentioned in the report. Our patient received ascorbic acid 500 mg BID orally and improved clinically and laboratory. **Conclusion:** Due to mild symptoms, congenital methemoglobinemia is rarely diagnosed and reported as a cause of the cyanosis, especially in adults. Despite the benign nature of congenital methemoglobinemia, it is crucial to keep it in the differential diagnosis list when assessing cyanotic patients, mainly if he has a normal PaO2. Patients are usually asymptomatic and are treated for cosmetic purposes, but they might suffer from severe complications if exposed to oxidative agents.

https://doi.org/10.1016/j.htct.2021.10.1059

PP 50

A RARE ASSOCIATION IN A CASE WITH HEREDITARY SPHEROCYTOSIS: SPECTRIN BETA (SPTB) AND JAK-2 MUTATION

Fatma YILMAZ, Murat ALBAYRAK, Merih REİS ARAS, Senem MARAL, Hacer Berna AFACAN ÖZTÜRK, Pınar TIĞLIOĞLU, Mesut TIĞLIOĞLU, Buğra SAĞLAM

Health Sciences University Diskapı Yıldırım Beyazit Training and Research Hospital, Hematology Clinic

Case report: Five types of gene variants are seen in hereditary spherocytosis (ANK, SPTB, SPTA1, SLC4A1, EPB42). JAK2 V617F mutation; is most common seen in bcr-abl negative chronic myeloproliferative diseases. As a result of NGS performed before splenectomy, SPTB c.4973+2T> C and JAK-2 c.1849G>T p.(Val617Phe) mutations were detected. Co-occurrence of these two mutations requires special attention in terms of the management of thrombocytosis and side effects that may occur after splenectomy.

https://doi.org/10.1016/j.htct.2021.10.1060

PP 51

RETROSPECTIVE EVALUATION OF PATIENTS WITH LANGERHANS CELL HISTIOCYTOSIS FOLLOWED IN OUR CLINIC

Mehmet Can Ugur [1], Cansu Atmaca Mutlu [2], Sinem Namdaroglu [1], Füsun Gediz [3], Oktay Bilgir [1]

[1] *Health Sciences University, Bozyaka Training and Research Hospital, Department of Hematology*
[2] *Izmir Democrasy University, Buca Seyfi Demirsoy Training and Research Hospital, Hematology*
[3] *Izmir Economy University, Medicalpark Hospital, Deparment of Hematology*

Objective: Langerhans cell histiocytosis (LCH) is a rare histiocytic disorder that can be especially seen in children and young adults. The clinical presentation of patients with LCH varies according to the sites of involvement. In about half of patients, the disease is limited to a single organ system and bone involvement is very common. In this study, it was aimed